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ABSTRACT

The purpose of the Ohio College Library Center (OCLC) computerized regional library system is to provide an on-line system that makes available to faculty and students in individual colleges and universities the library resources throughout a region, while at the same time decelerating the rate of per-student library costs. The research and development culminated in the successful implementation of an on-line union catalog and shared cataloging system. The final report of the project is LI 004 422. This document contains appendices one through four: (1) Instruction Manual for Catalog Production, (2) Manual for OCLC Catalog Card Production, (3) Creation of Machine Readable Catalog Entries. An Adaptation of the "Data Preparation Manual: MARC Editors," and (4) Cataloging on a Cathode Ray Tube Terminal. (Other appendices are LI 004 424 through LI 004 428.) (Author/SJ)

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Final Report

Project No. 9-0554
Contract No. OEC-0-70-2289 (506)

June 1973

THE DEVELOPMENT OF A COMPUTERIZED REGIONAL LIBRARY SYSTEM

APPENDICES 1-4

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LI 004 423

APPENDICES

I. Instruction Manual for Catalog Production. (LI 004 423)

II. Manual for OCLC Catalog Card Production; Revised and Enlarged. Judith Hopkins. (LI 004 423)

III. Creation of Machine Readable Catalog Entries; An Adaptation of the "Data Preparation Manual: MARC Editors." (LI 004 423)

IV. Cataloging on a Cathode Ray Tube Terminal. (LI 004 423)

V. Brief Description of the Serials Control System: A Preliminary Report. (LI 004 424)

VI. A Preliminary Description of the OCLC Serials Control System. (LI 004 424)

VII. Manual for Checking-In, Binding, and Claiming of Serials on a CRT Terminal - Draft of Preliminary Procedures. (LI 004 424)

VIII. Suggested Minimum Requirements for Serials Cataloging. (LI 004 424)

IX. OCLC Technical Processing System - A Preliminary Outline. (LI 004 424)

X. The Technical Processing System, May 1972. (LI 004 424)

XI. Recommended Standards for the Cataloging of Serials. (LI 004 424)

XII. Standards for Input Cataloging. (LI 004 424)

XIII. The Technical Processing System, August 1972. (LI 004 424)

XIV. Ohio College Library Center Annual Report, 1971/1972. (LI 004 424)

XV. Large On-Line Files of Bibliographic Data: An Efficient Design and a Mathematical Predictor of Retrieval Behavior. P.L. Long, K.B.L. Rastogi, J.E. Rush and J.A. Wyckoff. (Not Available EDRS)

XVI. OCLC Systems: Technical Aspects. Phillip Long. and Ohio State University Libraries Systems. Gerry D. Guthrie. (Not Available EDRS)

XVII. Name-Title Entry Retrieval from a MARC File. Philip L. Long and Frederick G. Kilgour. (Not Available EDRS)

XVIII. A Truncated Search Key Title Index. Philip L. Long and Frederick G. Kilgour. (Not Available EDRS)

XIX. Title-Only Entries Retrieved by Use of Truncated Search Keys. Frederick G. Kilgour, Philip L. Long, Eugene B. Leiderman and Alan L. Landgraf. (Not Available EDRS)

XX. Ohio College Library Center Systems. Frederick Kilgour. (Not Available EDRS)

XXI. Evolving, Computerizing, Personalizing. Frederick Kilgour. (Not Available EDRS)

XXII. The Shared Cataloging System of the Ohio College Library Center. Frederick G. Kilgour, Philip L. Long, Alan L. Landgraf, and John W. Wyckoff. (Not Available EDRS)

XXIII. Cataloging with a Computer - OCLC Comes to Pennsylvania. Robert C. Stewart. (Not Available EDRS)

XXIV. The Ohio College Library Center Program/Subroutine Documentation; Master Data Base Update (MDBUPD). (LI 004 425)

XXV. The Ohio College Library Center Program/Subroutine Documentation; Convert Call Number (CNVT). (LI 004 426)

XXVI. The Ohio College Library Center Program/Subroutine Documentation; Generate Pack Definition Tables (GENPDTS). (LI 004 427)

XXVII. The Ohio College Library Center Program/Subroutine Documentation; Catalog Card Format Program (CCFP). (LI 004 427)

XXVIII. The Ohio College Library Center Program/Subroutine Documentation; Build Print Tape (BPT). (LI 004 428)

I

Instruction Manual for Catalog Production

Ohio College Library Center
1314 Kinnear Road
Columbus, Ohio 43212
February, 1970

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The purpose of this Instruction Manual is three-fold. Section I, DEFINING THE PACK, delineates the objectives of the Catalog Profile Questionnaire and describes how to complete it. Section II, REQUEST PROCEDURES, provides the Membership with various procedures to follow when asking for catalog cards from OCLC. Section III, DESCRIPTION OF PRECODED PUNCH CARDS, contains a detailed explanation for completing precoded punch cards.

The Ohio College Library Center will produce cards weekly when each new MARC tape is received.

SECTION I: DEFINING THE PACK

Purpose of the Catalog Profile Questionnaire

The Ohio College Library Center has developed a Catalog Production System capable of handling the individual needs of a Member library, which is likely to have a number of receiving catalogs, such as public catalog, official catalog, or shelf list within its system. To secure from the Membership information about catalog cards to be produced for each catalog, OCLC has devised a Catalog Profile Questionnaire.

A separate Catalog Profile Questionnaire must be completed for each receiving catalog, since types of cards will vary for each catalog. Catalog cards produced for any one receiving catalog are called a pack. When a Member library has more than one receiving catalog, the entries produced for all of its receiving catalogs are referred to as complete packs.

Types of Entries

Catalog cards comprising a pack can be nine different types. They are:

Main Entry to be Arranged by Call Number (Shelf List).

Main Entry

Topical Subject Entry

Name as Subject Entry

Geographic Subject Entry

Personal or Corporate Added Entry

Title Added Entry

Author-Type Series Added Entry

Title-Type Series Added Entry

Some libraries maintain special catalog files for books having certain characteristics, such as a provenance catalog for books bearing marks of previous ownership. The Catalog Production System possesses the capability of producing "extra cards" for such special files. Those Members maintaining special catalogs should inquire of OCLC for the procedure to employ for requesting an extra card or cards.

Completing the Catalog Profile Questionnaire

A Catalog Profile Questionnaire should be filled out for each catalog - for each systematically arranged group of cards listing contents of a library or collection. If a public catalog has been divided into two systematic listings, one by author and title and the other by subject, a questionnaire should be filled out for each.

Only collections that possess their own catalogs should be described on questionnaires. For example, a reference collection recorded in a separate catalog should be reported on questionnaires. However, a reference collection listed only in a general catalog and designated by a stamp such as "Ref" over call numbers should not have a questionnaire. In this case, the stamp should be included on the blue or yellow punch card from which complete packs will be produced.

There are two parts to the Catalog Profile Questionnaire. The first part contains three questions, the first of which asks for the name of the "holding library or collection". The holding library is the library in which the book is to be shelved, regardless of where it is to be processed or the location of catalogs into which cards are to go. For example, a book may be shelved in a chemistry library, although processed in the central library, and represented by cards in a catalog in the chemistry library, and in the public catalog and shelf list of the central library. The second question requests a Member library to designate the receiving catalog to which the questionnaire is referring. The third question asks for the stamp to appear over call numbers on cards in catalogs that are not located in the holding library.

The second part of the form consists of a table which should be completed according to the characteristics desired for each of nine types of entries that may be included in a pack. The types of entries are found in the left side of Figure 1. Across the top of the table are five variable components associated with types of entries. They are from left to right on Figure 1: Holdings Information, Tracings, Subject Headings Position, Indention of Headings at Top of Cards, Capitalization of Headings at Top of Cards. These components should be defined for types of entries to be in a pack.

Some libraries record holdings information on only shelf list cards or main entries, while others list holdings on all cards. Checks in the "Yes" and "No" columns under "Holdings Information" will yield the formula that each Member wishes to apply. If tracings are desired at the bottom of cards, check "Yes". If no tracings are needed, mark "No". Subject headings can be positioned at either the top or the bottom of the cards. A check should go into one of the two positions desired.

The fourth variable contains information concerning indention of the heading. The first line of the heading at the top of a card may begin at one of four places: left edge of the card, first indention, second indention, third indention. Mark the box indicating the preferred indention for each type of added entry in a pack. Second and third lines of a heading will always begin at third indention. The last variable refers to capitalization used in headings at the top of cards; the Member can have a heading either in all capitals or in a combination of initial capital and lower-case letters.

After receiving a completed questionnaire from each Member, OCLC will devise a unique, three-symbol code for each holding library or collection. These three-symbol codes will be used by the Member whenever "Local Location" is requested on punch cards. A list of these three-symbol codes will be sent to each Member library.

OHIO COLLEGE LIBRARY CENTER .

Catalog Profile Questionnaire

I. To define the pack of a receiving catalog, the Member should complete the following table. Directions for completing the table are in the Instruction Manual, pp. 2-3. Leave blank rows for types of entry not to be included in this pack.

II. 1. What is the name of the holding library or collection for which this pack contains cards?

2. What is the name of the receiving catalog into which this pack will go?

3. If this receiving catalog is not in the holding library or collection, put in the following box the stamp to appear above the call number (see Instruction Manual).

with

Type of Entry	Holdings Information		Tracings		Subject Headings Position		Indention of Headings at Top of Cards (first line only)				Capitalization of Headings at Top of Cards.	
	Yes	No	Yes	No	Top of Card	Bottom of Card	Left edge	First indention	Second indention	Third indention	Upper case	Upper and lower case.
Main Entry to be Arranged by Call Number (Shelf List)					▨	▨	▨	▨	▨	▨	▨	▨
Main Entry					▨	▨	▨	▨	▨	▨	▨	▨
Topical Subject Entry												
Name as Subject Entry												
Geographic Subject Entry												
Personal or Corporate Added Entry					▨	▨						
Title Added Entry					▨	▨						
Author-Type Series Added Entry					▨	▨						
Title-Type Series Added Entry					▨	▨						

Fig. 1. Catalog Profile Questionnaire.

SECTION II: REQUEST PROCEDURES

This section of the Manual contains directions for using punch cards to obtain catalog cards from MARC records. The Catalog Production System provides for four basic call number schemes: namely, use of LC cataloging data plus LC call number, use of LC data with alteration of LC call number, use of LC data and Dewey class number, and use of LC cataloging data with a local call number. Most libraries now employ two intermeshed procedures for cataloging. The primary procedure employs LC cataloging data, and the secondary procedure utilizes original cataloging when LC data is not available. The OCLC Catalog Production System will integrate with present primary procedures.

When to Request

In a library that obtains its LC cataloging data from the NUC catalog, proofslips, or depository cards, procedures could be somewhat as follows. When a book is received, the cataloger would check the verso of the title page to see if the LC card number began with a "7". If it did, he would write that LC card number on the appropriate OCLC punch card (details below) and that card would be sent to OCLC to produce the desired catalog cards.

If the card number did not begin with a "7", the cataloger would search the book in files of LC cataloging data such as the NUC catalog, proofslip file, or depository card file. When he located an LC catalog record describing the book and bearing a card number with the designation "MARC", he would write the card number on the appropriate punch card to go to OCLC.

Books not bearing an LC card number with an initial "7" or not having a catalog record with the MARC designation would be processed according to the library's present cataloging system.

A library doing its cataloging with LC catalog data and using LC call numbers, but not using the NUC catalog, proofslips, or depository cards, would also request packs of cards from OCLC at the time the book arrived. If packs were to be requested earlier, some catalog cards would be in the catalog before the book would be on the shelf.

In the case of a library that does not use Library of Congress call numbers, it would be appropriate to request a unit card from OCLC at the time the book was ordered, providing that the LC card number began with a "7". If the LC card number does not have an initial "7", the book would be processed according to the library's present cataloging procedures.

Permanent Records at OCLC

Information received on punch cards from Members will be stored in the OCLC master file. A record will be kept by holding library of each book cataloged, these records to include the additions or changes requested by a Member. Therefore, libraries need to report an addition or change to OCLC only once.

Four Requisition Procedures

As mentioned above, there are four basic call number systems, each having different request procedures. As each of these procedures is explained, certain options will be discussed. These options permit each Member to alter the cataloging and call number to satisfy its own requirements.

On unit cards, as depicted in Figure 4, LC call numbers or Dewey class numbers are located in a 22-position area on the bottom line that is called the "user's option area". A library may insert information in this space on cards in catalog packs. For example, an accession number could be placed in the user option area.

For each set of procedures there is a corresponding flowchart (Figures 2, 3, 5, 6). These flowcharts represent the various options available to a Member when requesting catalog cards in accordance with one of the four basic procedures.

Users of LC Call Number (Fig. 2)

These Members will request catalog cards by completing the blue punch card, which requests production of complete packs. There are four options in making this type of request.

Case 1. If there are no modifications to be made to descriptive cataloging and no holdings to record as a note, then the Member library would send only the blue card to OCLC. Holdings information to be part of the call number should be written in the box in the lower, right-hand corner of the blue card (Fig. 8).

Case 2. If the library does want to make modifications to the LC data or to insert information into the user's option area, the librarian would use the brown card with the blue card.

Case 3. When a Member wishes to record a holdings statement as a note instead of with the call number, the Member would fill out the orange card as well as the blue card.

Case 4. Finally, there may be times when a Member library wants to make modifications and report holdings as notes. When both are desired, the librarian will complete the brown card and the orange card as well as the blue card.

Users of LC call numbers that employ the alternate class number supplied by LC for literature can obtain the alternate class number by filling out a green card labeled "LITERATURE" (Fig. 10).

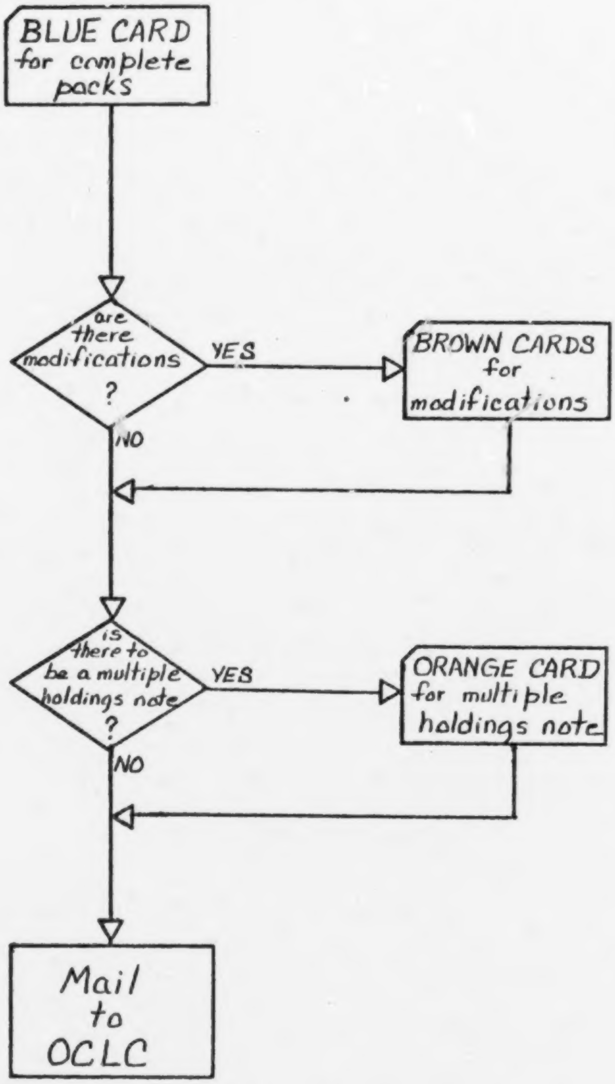

BLUE CARD for complete packs
are there modifications ?
YES
NO
BROWN CARDS for modifications
is there to be a multiple holdings note ?
YES
NO
ORANGE CARD for multiple holdings note
Mail to OCLC

Fig. 2. Library Using LC Call Number.

Users of LC Class Number (Fig. 3)

Member libraries using the LC class number but not book number will ask for catalog cards by completing a green punch card and forwarding it to OCLC. The green card requests OCLC to send a unit card (Fig. 4) to the Member. The green card labeled "LITERATURE" should be used to obtain the LC alternate literature class number. After a call number has been constructed for the book, the library may order complete packs, doing so by filling out the yellow punch card with the desired call number, i.e. LC class number plus local book number. A Member library requisitioning complete packs with the yellow card has four alternatives.

Case 1. If there are no modifications and no holdings as notes, the library will send only the yellow card to OCLC (Fig. 12 and 13).

Case 2. If the library wishes to make modifications to the LC descriptive cataloging or to insert information into the user's option area, the librarian will employ the brown card with the yellow card.

Case 3. If a Member wants to record holdings in a note, the librarian will use an orange punch card with the yellow punch card.

Case 4. A library can send both modifications and holdings notes to OCLC at the same time. In this case, the brown card plus the orange card would be used in conjunction with the yellow card.

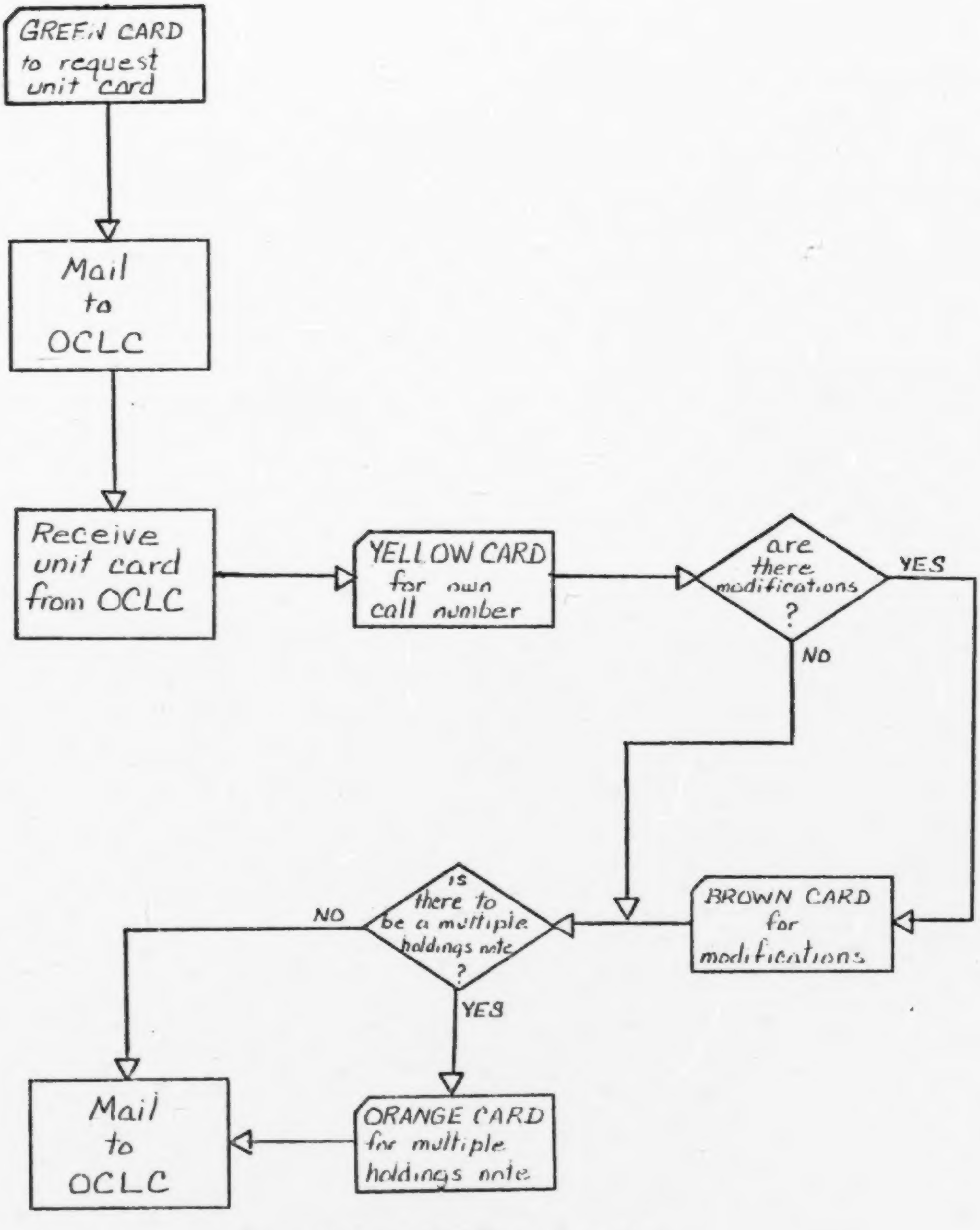
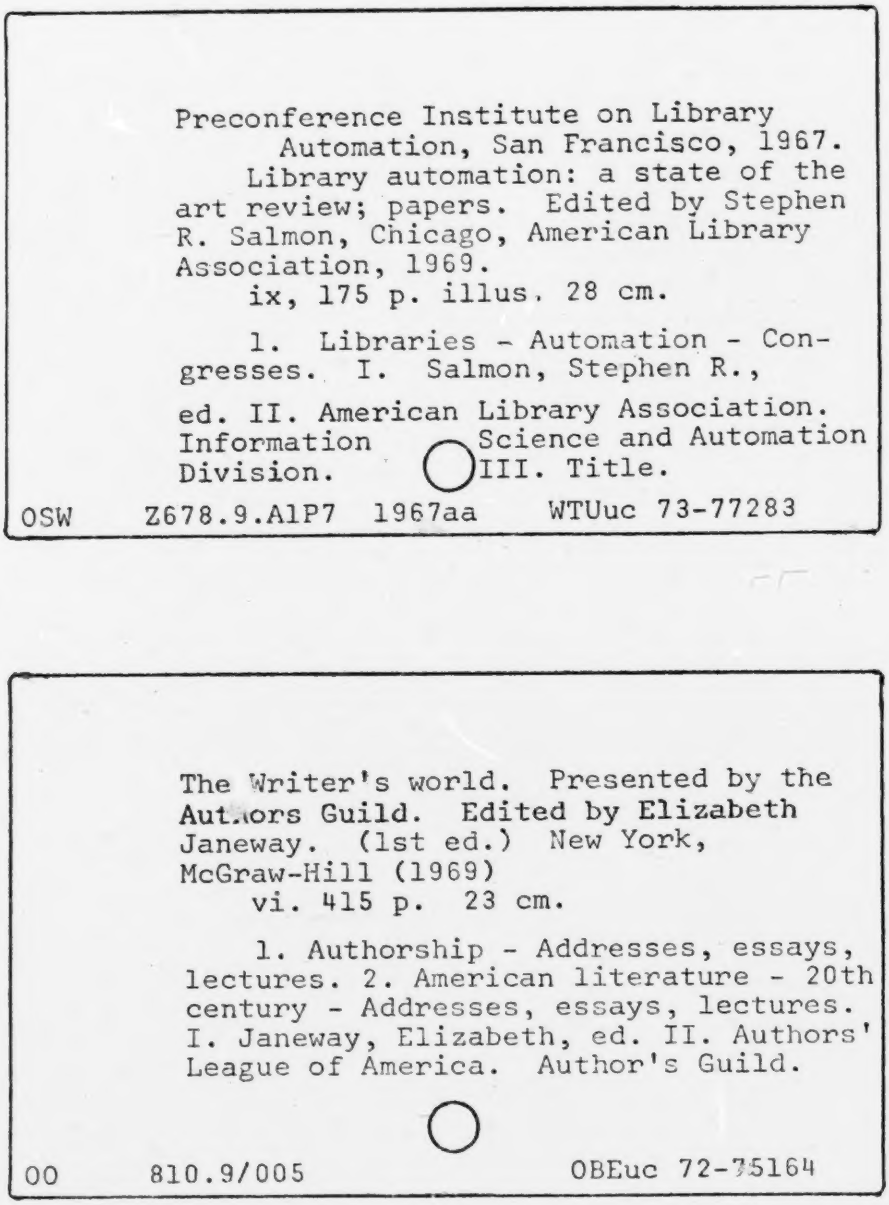

GREEN CARD to request unit card
Mail to OCLC
Receive unit card from OCLC
YELLOW CARD for own call number
are there modifications ?
YES
NO
BROWN CARD for modifications
is there to be a multiple holdings note ?
NO
YES
ORANGE CARD for multiple holdings note
Mail to OCLC

Fig. 3. Library Using LC Class Number.



Preconference Institute on Library
Automation, San Francisco, 1967.
Library automation: a state of the art review; papers. Edited by Stephen R. Salmon, Chicago, American Library Association, 1969.
ix, 175 p. illus. 28 cm.

1. Libraries - Automation - Congresses. I. Salmon, Stephen R., ed. II. American Library Association. Information Science and Automation Division. III. Title.

OSW Z678.9.A1P7 1967aa WTUuc 73-77283

The Writer's world. Presented by the Authors Guild. Edited by Elizabeth Janeway. (1st ed.) New York, McGraw-Hill (1969)
vi. 415 p. 23 cm.

1. Authorship - Addresses, essays, lectures. 2. American literature - 20th century - Addresses, essays, lectures. I. Janeway, Elizabeth, ed. II. Authors' League of America. Author's Guild.

00 810.9/005 OBEuc 72-75164

Fig. 4. Unit Cards

Dewey Users (Fig. 5)

Members of OCLC using the Dewey class number follow the same request procedures as do libraries employing the LC class number with one exception. Dewey users request a unit card by sending a completed red punch card to OCLC.

To obtain complete packs a Member will fill out the yellow punch card and exercise one of the following options.

Case 1. When there are no modifications and no holdings note to be reported, the library will send only the yellow card.

Case 2. When a Member needs modifications or wishes to insert information in the user's option area, the librarian completes a brown punch card and sends it to OCLC with the yellow card.

Case 3. To add a holdings note, an orange card should be sent with the yellow card.

Case 4. Modi[illegible]ions and holdings notes can be produced by comp[illegible]g a brown card and orange card, both to be sent to OCLC with a completed yellow card.

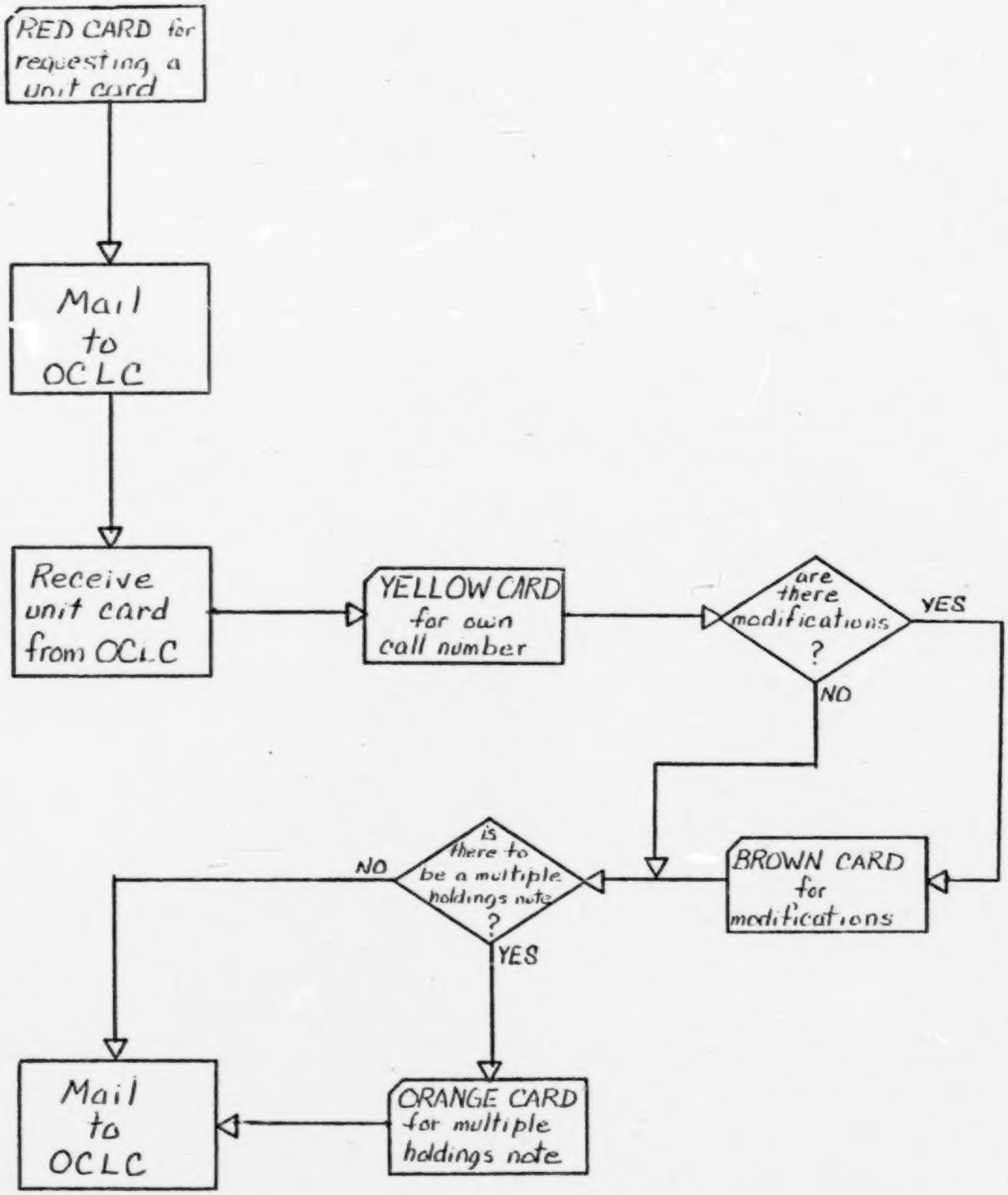

RED CARD for requesting a unit card
Mail to OCLC
Receive unit card from OCLC
YELLOW CARD for own call number
are there modifications ?
YES
NO
BROWN CARD for modifications
is there to be a multiple holdings note ?
NO
YES
ORANGE CARD for multiple holdings note
Mail to OCLC

Fig. 5. Library Using Dewey Class Number.

Users of Local Call Numbers (Fig. 6)

Members who utilize their own local call numbers either for a special collection or for the entire collection may request catalog cards by filling out the yellow card with the call number. One of four alternatives may be exercised.

Case 1. The yellow card will be used to obtain cards bearing a local call number plus holdings (Fig. 12).

Case 2. If a modification or placement of data in the user's option area is desired, the librarian should send a brown card with the yellow card.

Case 3. To record a holdings note, the librarian would send an orange card with the yellow card.

Case 4. Modifications and holdings notes may be reported simultaneously by completing both the brown card and the orange card, and sending them to OCLC with the yellow card.

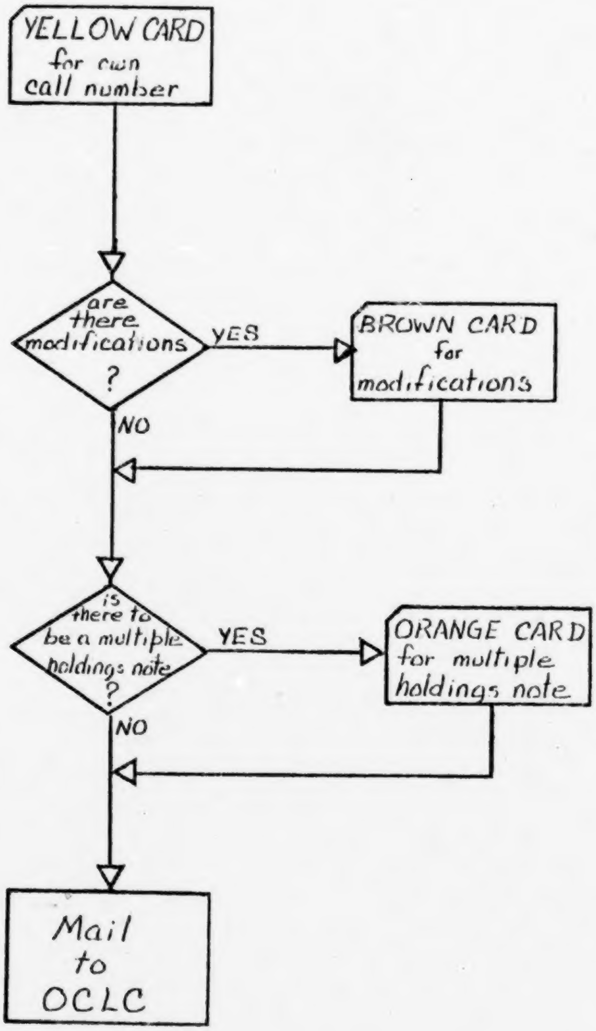

YELLOW CARD for own call number
are there modifications ?
YES
BROWN CARD for modifications
NO
is there to be a multiple holdings note ?
YES
ORANGE CARD for multiple holdings note
NO
Mail to OCLC

Fig. 6. Library Using Local Call Number.

Modifications and Multiple Holdings Notes

The brown card and orange card do not request catalog cards from OCLC. These two punch cards only request OCLC to alter the machine readable cataloging record for card production to be achieved by a blue or yellow card. Because instances may occur in which a library wishes to record modifications or holdings to the machine readable record without cards being produced, a Member may send either the brown card or the orange card to OCLC without a card requesting card production.

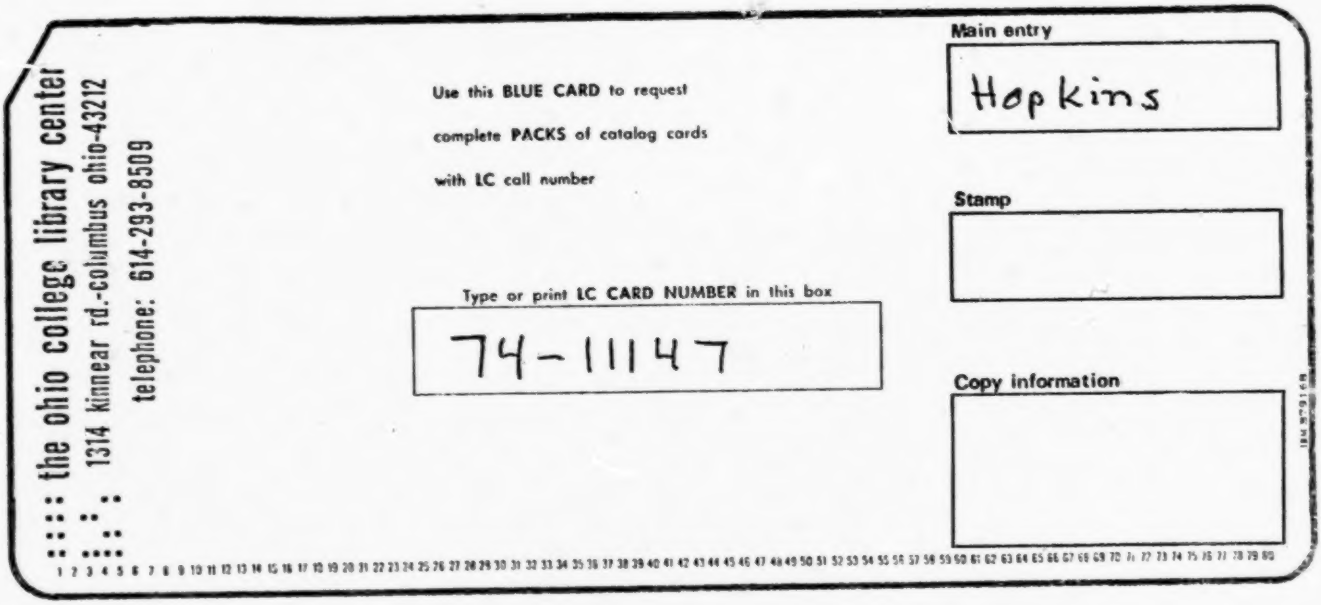
SECTION III. DESCRIPTION OF PRECODED PUNCH CARDS

This section of the Manual explains the function of seven precoded punch cards used in the Catalog Production System. Each punch card has a unique function, and except for the green "LITERATURE" card, each is a different color. A detailed explanation of the proper method to use in completing each punch card is also given. Figures 7 through 15 contain reproductions of the punch cards. Initial activation will not be full activation. Therefore, the Manual does not describe usage of some card boxes that will be utilized at a later date.

MARC records corresponding to card numbers on blue, green, and red cards will be sought in the MARC data base weekly for six weeks, and if not found, the original request card will be returned to the Member. Since libraries customarily arrange books awaiting processing by main entry, the first significant word of the main entry should be written in the box at the top, right-hand end of each blue, green, and red card submitted. Thereby, it will be possible for a library to locate readily a book for which a MARC record is absent in the data base.

Blue Punch Card (Fig. 7).

The blue card is used to request complete packs of catalog cards with the LC call number. To complete this punch card, one should type or print the LC card number in the box in the middle of the blue card.



the ohio college library center
1314 kinnear rd.-columbus ohio-43212
telephone: 614-293-8509

Use this **BLUE CARD** to request
complete **PACKS** of catalog cards
with **LC** call number

Type or print **LC CARD NUMBER** in this box

74-11147

Main entry

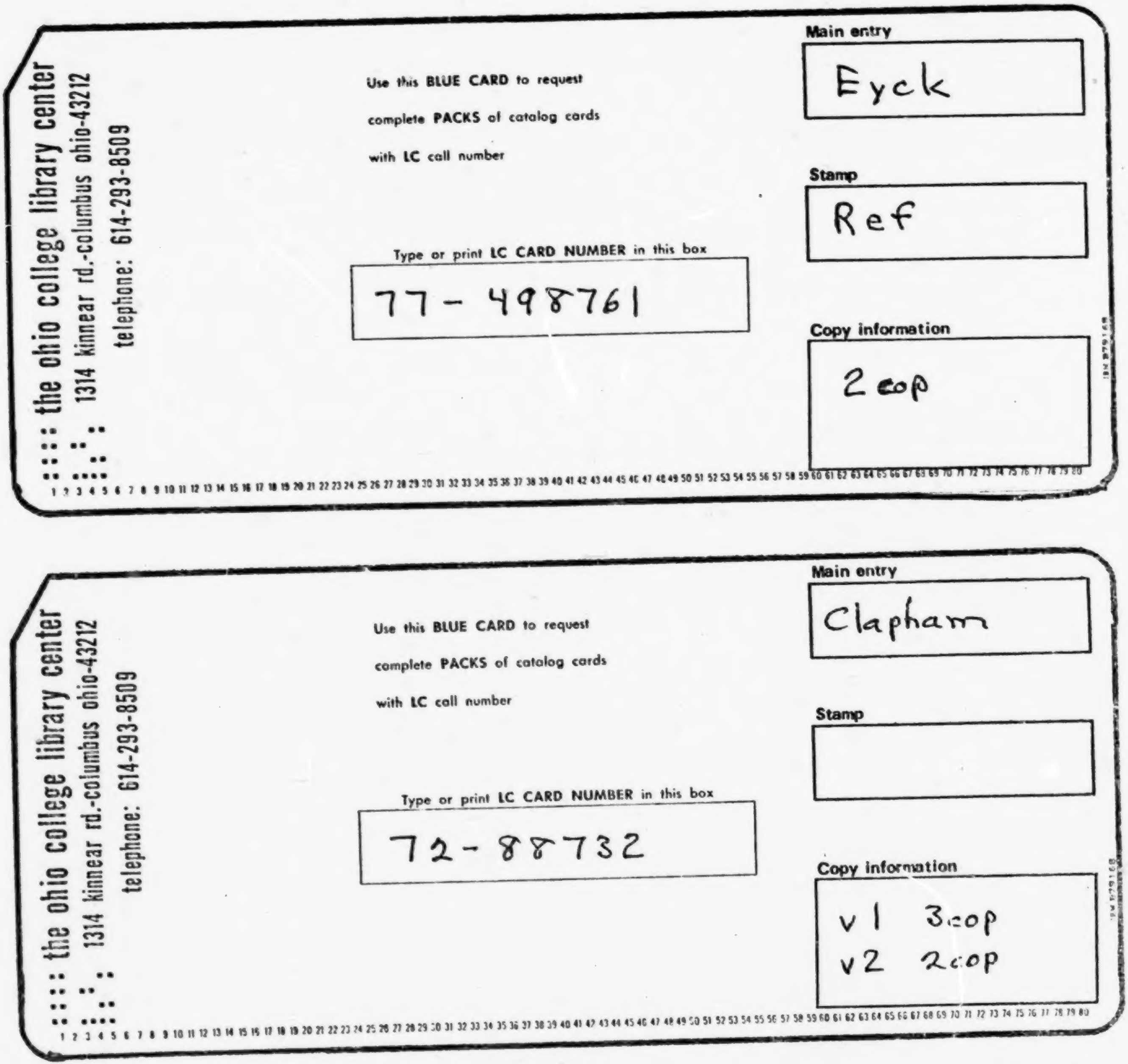
Hopkins

Stamp

Copy information

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

Fig. 7. Blue Card.



the ohio college library center
1314 kinnear rd.-columbus ohio-43212
telephone: 614-293-8509

Use this **BLUE CARD** to request
complete **PACKS** of catalog cards
with **LC** call number

Type or print **LC CARD NUMBER** in this box: 77-498761

Main entry: Eyck

Stamp: Ref

Copy information: 2 cop

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

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1314 kinnear rd.-columbus ohio-43212
telephone: 614-293-8509

Use this **BLUE CARD** to request
complete **PACKS** of catalog cards
with **LC** call number

Type or print **LC CARD NUMBER** in this box: 72-88732

Main entry: Clapham

Stamp:

Copy information:
v1 3 cop
v2 2 cop

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

Fig. 8. Blue Cards; Multiple Copies.

To list multiple copies of a book or volumes on a catalog card directly below the call number, place the desired information in the box at the right-hand end of the blue card below the level of the box for card numbers. If a "stamp" is required above the call number, put the stamp in the middle box at the right-hand end of the card. Figure 8 contains two examples.

Green Punch Card (Fig. 9).

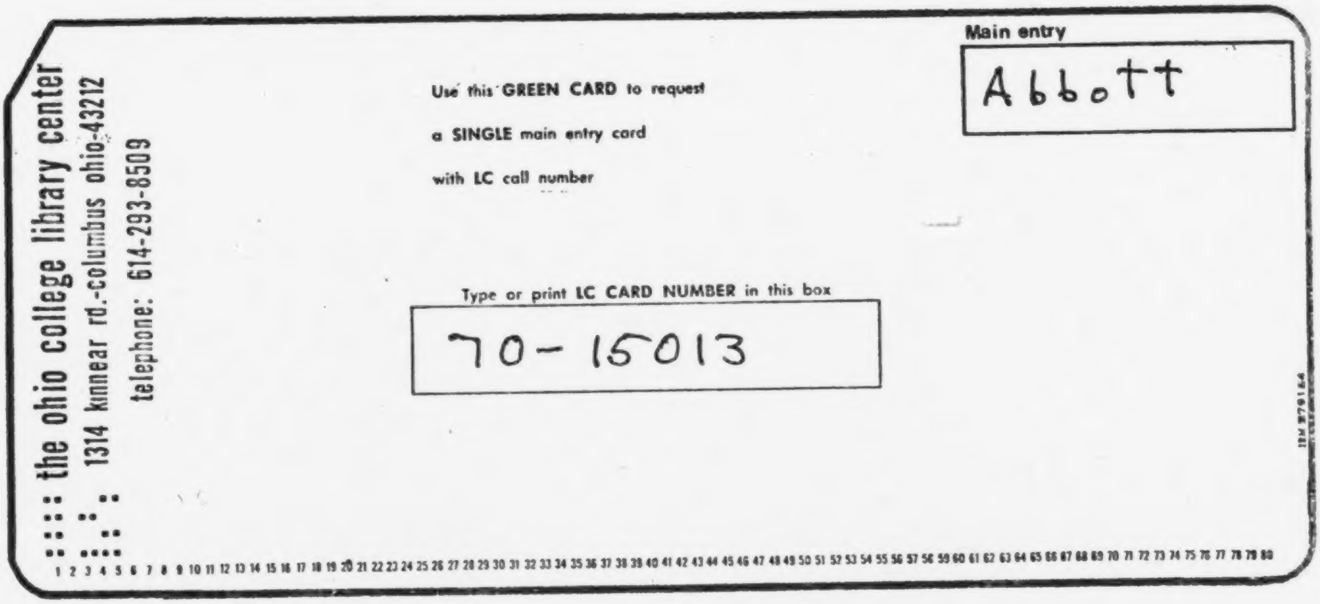
The green card should be used by a Member for requesting a unit card; this catalog card carries the LC call number in the bottom line (Fig. 4). Members should use the green card labeled "LITERATURE" (Fig. 10) to obtain a unit card bearing an LC alternate literature class number. By recording the LC card number in the box found in the middle of the green card, as in Figure 9, and forwarding the card to OCLC, the Member will receive a unit card.

Red Punch Card (Fig. 11).

Like the previous card, the red card is used to request a unit card. However, the red card requests a unit card bearing a Dewey class number. By placing the LC card number in the box in the middle of the red card, as in Figure 11, the Member will receive the desired unit card.

Yellow Punch Card (Fig. 12).

This punch card permits each Member to request complete packs of catalog cards with its local call number. That is to say, if a particular Member library has its own classification system the Member can have catalog cards made with its own call number. If a listing of holdings with the call number is desired when requesting catalog production with the yellow card, the Member should put the information in the larger box directly below the local call number. Figure 12 illustrates this technique.



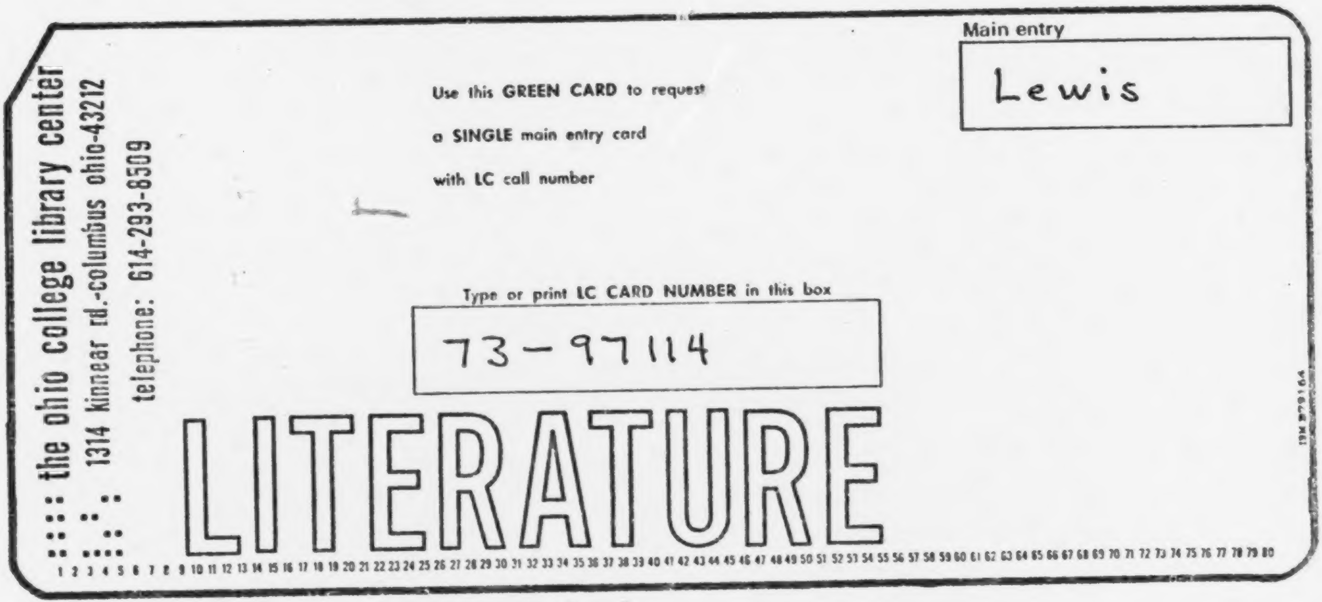
the ohio college library center
1314 kinnear rd.-columbus ohio-43212
telephone: 614-293-8509

Main entry: Abbott

Use this GREEN CARD to request
a SINGLE main entry card
with LC call number

Type or print LC CARD NUMBER in this box: 70-15013

Fig. 9. Green Card.



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telephone: 614-293-8509

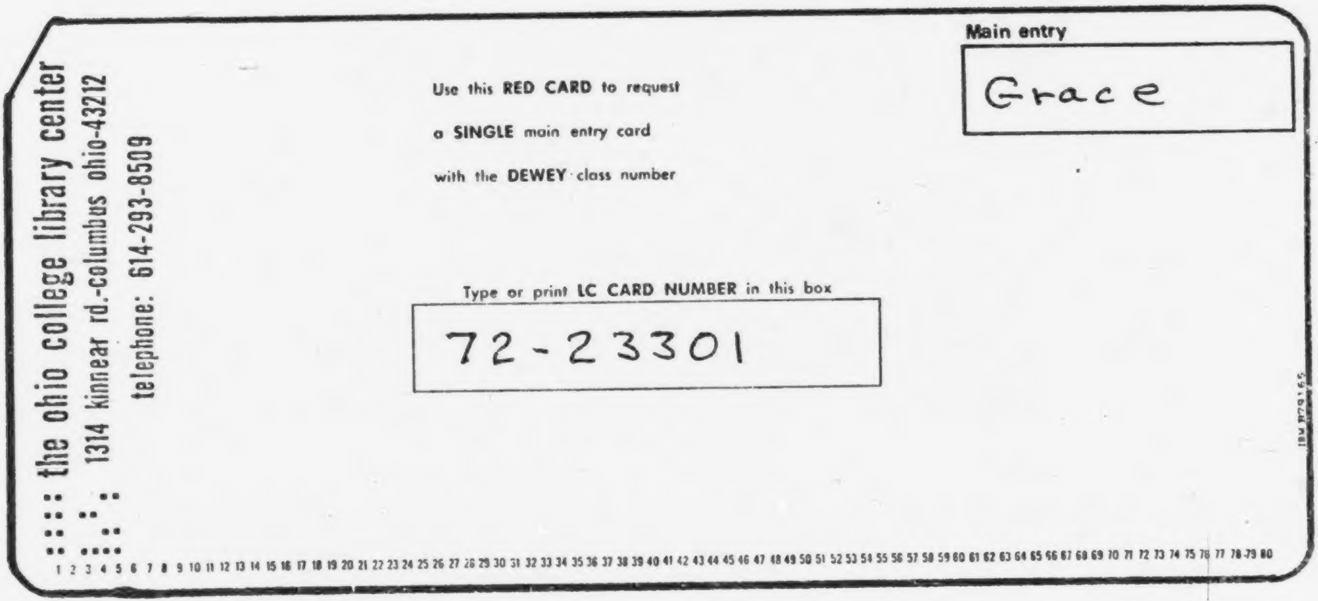
Main entry: Lewis

Use this GREEN CARD to request
a SINGLE main entry card
with LC call number

Type or print LC CARD NUMBER in this box: 73-97114

LITERATURE

Fig. 10. Green "Literature" Card.



the ohio college library center
1314 kinnear rd.-columbus ohio-43212
telephone: 614-293-8509

Use this **RED CARD** to request
a **SINGLE** main entry card
with the **DEWEY** class number

Main entry

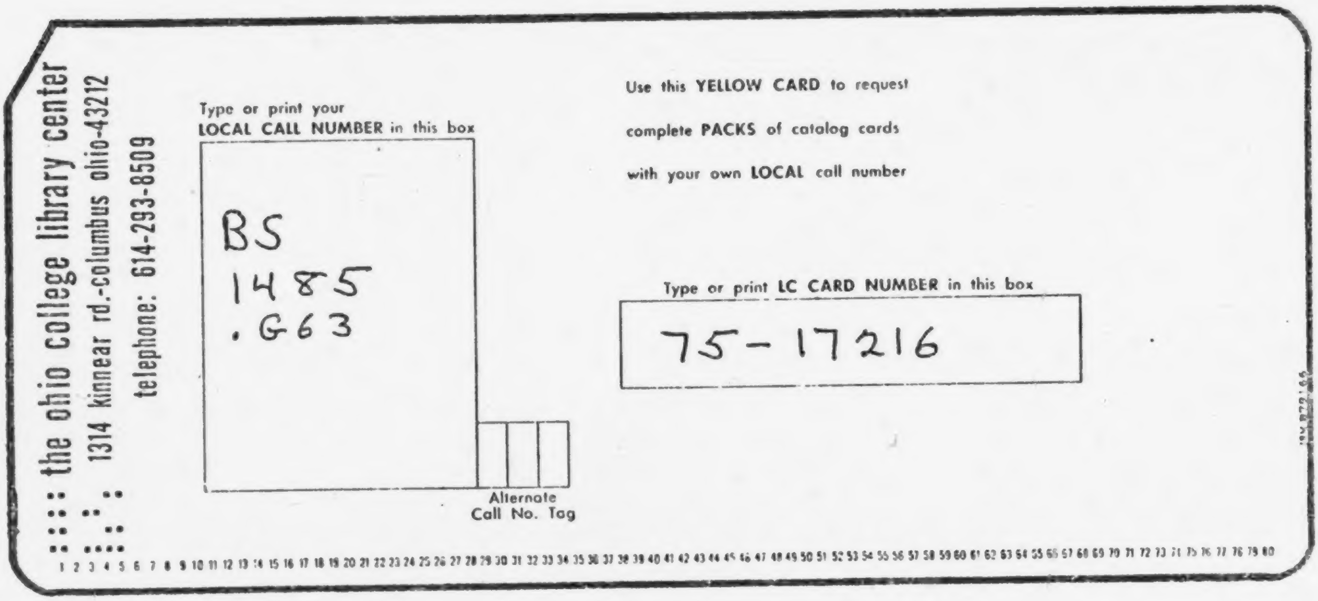
Grace

Type or print **LC CARD NUMBER** in this box

72-23301

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

Fig. 11. Red Card.



the ohio college library center
1314 kinnear rd.-columbus ohio-43212
telephone: 614-293-8509

Type or print your
LOCAL CALL NUMBER in this box

BS
1485
.G63

Alternate
Call No. Tag

Use this **YELLOW CARD** to request
complete **PACKS** of catalog cards
with your own **LOCAL** call number

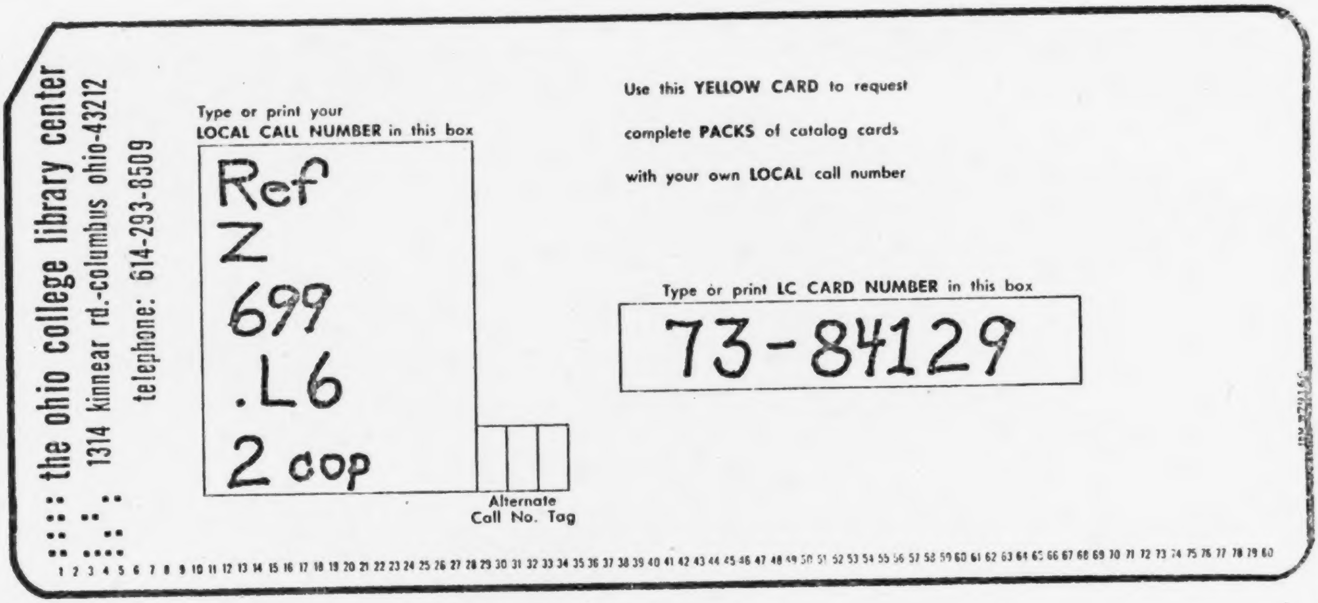
Type or print **LC CARD NUMBER** in this box

75-17216

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

Fig. 12. Yellow Card.

The LC card number should be placed in the box to the right and the local call number, exactly as it is to appear on the catalog card, should be placed, left-justified, in the larger box to the left (Fig. 12). Since each call-number line will accommodate up to eight characters, no more than eight characters including decimal points and blank spaces should be arranged on one line. If a listings of holdings with the call number is desired when requesting catalog production with the yellow card, the Member should put the information in the larger box directly below the local call number. Figure 13 illustrates this technique.



the ohio college library center
1314 kinnear rd.-columbus ohio-43212
telephone: 614-293-8509

Type or print your **LOCAL CALL NUMBER** in this box

Ref
Z
699
.L6
2 cop

Alternate Call No. Tag

Use this **YELLOW CARD** to request complete **PACKS** of catalog cards with your own **LOCAL** call number

Type or print **LC CARD NUMBER** in this box

73-84129

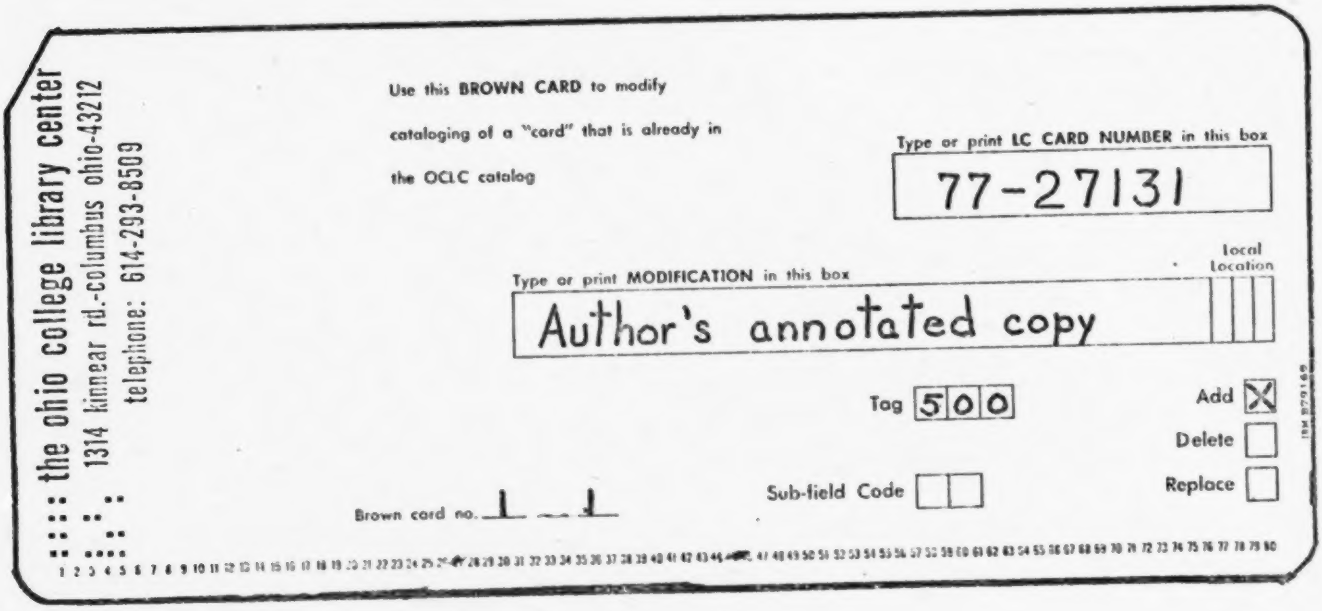
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

Fig. 13, Yellow Card; Multiple Copies.

Brown Punch Card (Fig. 14).

A Member library requests modifications to LC descriptive cataloging or insertion of information into the user's option area on the bottom line of a catalog card, using a brown punch card. In the upper-right corner of the card is a box within which the LC card number should be typed or printed, as in Figure 14. Immediately below the LC card number there is a longer box for the modification. The change to the descriptive cataloging should be typed or printed in this box exactly as it is to appear on the catalog cards. Only one line of text to be on a catalog card should be placed in the modification box of any brown card. If the modification requires more than one line to complete, then two, three, or more additional brown cards should be used. Similarly, if there are a number of different modifications for one book, then each modification should be reported on a separate brown card.

Directly beneath the modification box is a box labeled "Tag". The tag is a three-digit number used to designate the catalog element to be modified (See Subscriber's Guide to the MARC Distribution Service, pp. 41-67). This tag number can be selected from Table 1.


the ohio college library center
1314 kinnear rd.-columbus ohio-43212
telephone: 614-293-8509

Use this **BROWN CARD** to modify
cataloging of a "card" that is already in
the OCLC catalog

Type or print **LC CARD NUMBER** in this box
77-27131

Type or print **MODIFICATION** in this box
Author's annotated copy

Local Location

Tag 500

Add ☒
Delete ☐
Replace ☐

Sub-field Code ☐☐

Brown card no. 1 _ 1

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

Fig. 14. Brown Card.

Main Entry

1 0 0	Personal Name
1 1 0	Corporate Name
1 1 1	Conference or Meeting
1 3 0	Uniform Title Heading

Supplied Titles

2 4 0	Uniform Title
2 4 1	Romanized Title
2 4 2	Translated Title

Title Paragraph

2 4 5	Title
2 5 0	Edition Statement
2 6 0	Imprint

Collation

3 0 0	Collation
3 5 0	Bibliographic Price
3 6 0	Converted Price

Series Notes

4 0 0	Personal Name - Title (Traced Same)
4 1 0	Corporate Name - Title (Traced Same)
4 1 1	Conference-Title (Traced Same)
4 4 0	Title (Traced Same)
4 9 0	Series Untraced or Traced Differently

Bibliographic Notes

5 0 0	General Notes
5 0 1	"Bound With" Note
5 0 2	Dissertation Note
5 0 3	Bibliographic History Note
5 0 4	Bibliography Note
5 0 5	Contents Note (Formatted)
5 0 6	"Limited Use" Note
5 2 0	Abstract or Annotation

Subject Added Entries

6 0 0	Personal Name
6 1 0	Corporate Name (excluding political jurisdiction alone)
6 1 1	Conference or Meeting
6 3 0	Uniform Title Heading
	LC Subject Headings
6 5 0	Topical
6 5 1	Geographic Names
6 5 2	Political Jurisdictions Alone or with Subject Subdivisions
	Other Subject Headings
6 6 0	NLM Subject Headings (MESH)
6 7 0	NAL Subject Headings
6 9 0	Local Subject Heading Systems

Other Added Entries

7 0 0	Personal Name
7 1 0	Corporate Name
7 1 1	Conference or Meeting
7 3 0	Uniform Title Heading
7 4 0	Title Traced Differently
7 5 0	Name Not Capable of Authorship

Series Added Entries

8 0 0	Personal Name-Title
8 1 0	Corporate Name-Title
8 1 1	Conference or Meeting-Title
8 4 0	Title

OCLC Tags

9 5 0	User's option area

Table 1. Variable Field Tags.

For example, the modification given in Figure 14 identifies the book as the author's annotated copy, which is a general note and bears the tag "500". In the lower-right corner of the brown card are three separate boxes, labeled "Add","Delete", and "Replace". Normally, only one of the three boxes would be checked. However, the only modification to LC cataloging that can be made at initiation of the Catalog Production System is "Add".

Finally, there is a short phrase found in the lower-middle section of the brown card that reads, "Brown card no. _______ of _______". The Member library will complete this statement according to the number of brown cards used and in the order these cards are to be processed. For example, if four brown cards were necessary to modify the cataloging, the phrases on the punch cards would be completed as follows:

"Brown card no. _1_ of _4_" --- First Card

"Brown card no. _2_ of _4_" --- Second Card

"Brown card no. _3_ of _4_" --- Third Card

"Brown card no. _4_ of _4_" --- Fourth Card

The four brown cards would then be processed by OCLC in the numerical order designated by the Member.

Orange Punch Card (Fig. 15).

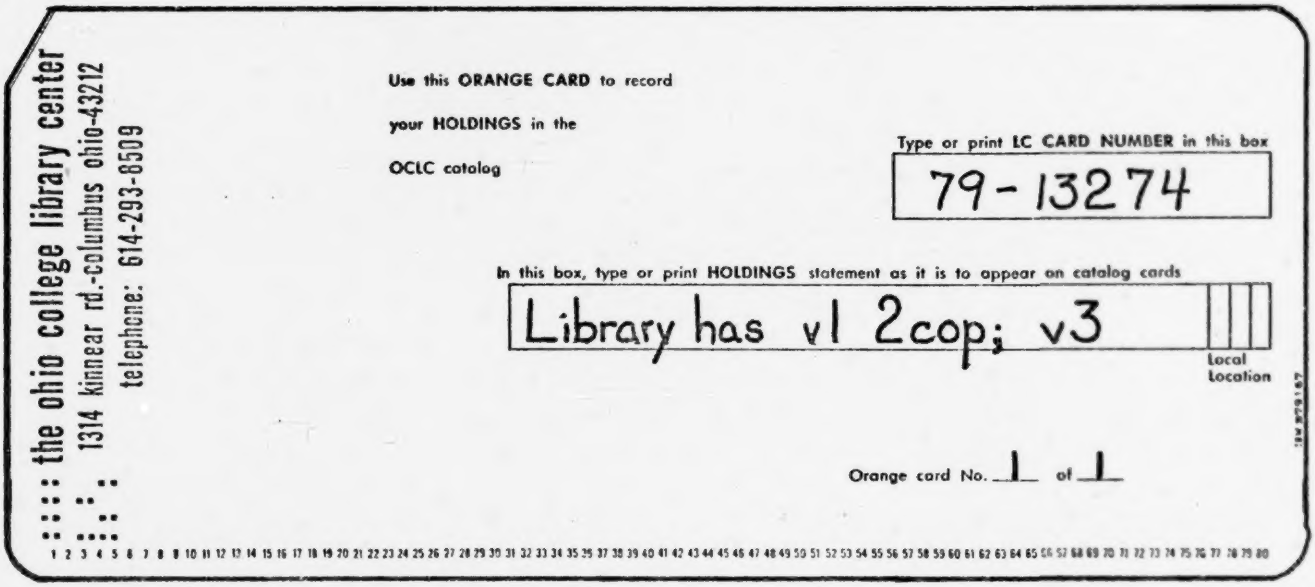
The function of the orange card is similar to that of the brown card; the orange card enables a library to record holdings as a note in the OCLC master file. The LC card number should be placed in the box found in the upper-right corner of the orange card. The holdings statement, exactly as it is to appear in the note on the catalog cards, should be typed or printed in the longer box in the middle of the punch card. Holdings should be listed positively in the form "Library has v1 2cop; v2; v4 2cop".

The orange card has a brief statement in the lower-right corner which reads, "Orange card no. _____ of _____". Because only one line may be typed in the holdings box, and because only one holdings statement may be placed on a single orange card, more than one orange card may be needed to catalog a book satisfactorily. If for example there were four different holdings statements for a book, then it would be necessary to use four orange cards. The first of the four cards would be completed like that in Figure 15 --- "Orange card no. 1 of 4". The remaining three punch cards would be completed as follows according to the desired order of processing:

"Orange card no. 2 of 4" --- Second Card

"Orange card no. 3 of 4" --- Third Card

"Orange card no. 4 of 4" --- Fourth Card



the ohio college library center
1314 kinnear rd.-columbus ohio-43212
telephone: 614-293-8509

Use this **ORANGE CARD** to record
your **HOLDINGS** in the
OCLC catalog

Type or print **LC CARD NUMBER** in this box
79-13274

In this box, type or print **HOLDINGS** statement as it is to appear on catalog cards
Library has v1 2cop; v3

Local Location

Orange card No. 1 of 1

Fig. 15. Orange Card.

II

MANUAL FOR OCLC CATALOG CARD PRODUCTION

Revised and enlarged

by

Judith Hopkins

Ohio College Library Center
1314 Kinnear Road
Columbus, Ohio 43212
February, 1971

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MANUAL FOR OCLC CATALOG CARD PRODUCTION

INTRODUCTION

I. Background of OCLC

Ohio's academic libraries have been interested in co-operative enterprises since the early fifties. The period leading to the formation of the Ohio College Library Center began in late 1962 when Wyman Parker, Librarian of Wesleyan College in Middletown, Connecticut, was appointed by the Ohio College Association to study and report on the practicality of an extensive program of inter-academic library cooperation. The Parker report, entitled The Possibility of Extensive Academic Library Cooperation in Ohio: a Survey, was issued in April, 1963 after being presented to the Executive Board of the Ohio College Association on March 28, 1963. The main recommendations of the report were the establishment of a Bibliographical Center to facilitate inter-library lending among Ohio libraries and cooperative purchase of microprint by the Center.

For the next three years the Committee of Librarians of the Ohio College Association was particularly concerned with implementing some of the Parker recommendations. The principal project developed was for a union catalog of holdings of Ohio college libraries. Three corporations (later four) were asked to submit proposals for the project and the Committee gave serious consideration to two of them. one for the construction of a union catalog using microform technology and the other using a central computer store. Since the Committee members could not unanimously decide in favor of one or the other of the proposals, the Committee decided on July 15, 1965 that the alternative proposals for a Library Center and automated union catalog should be critically examined by a team of library consultants with extensive experience in data processing. Dr. Ralph Parker, Director of Libraries, University of Missouri, and Mr. Frederick G. Kilgour, Associate Librarian for Research and Development, Yale University were invited to serve as consultants and both agreed.

In their report, which was endorsed by the Committee of Librarians at its meeting of March 11, 1966, the consultants rejected both proposals and proposed their own. They did this on the grounds that the commercial proposals were concerned only with mechanizing present library procedures and that such an approach could not be justified at a time when it was possible to organize a regional group of libraries into one total information system using computers and their associated equipment. Moreover, they felt that the classical union catalog has been an expensive and relatively inefficient tool for facilitating the flow of bibliographic information in a library network. They therefore suggested establishment of a cooperative computerized regional network in which most, if not all, Ohio college libraries would participate. Such a central computerized network would have many functions, of which a union catalog would be one. The first goal of such a system was to be the establishment of an effective shared cataloging program based on a central computer store containing a catalog of the current holdings of Ohio college libraries. As a by-product, the central store would supply union catalog information on these current holdings. The heart of such a system was to be an Ohio College Library Center (OCLC) to plan, design, activate, and operate the Ohio academic libraries regional information system.

OCLC was incorporated as a non-profit corporation on July 6, 1967. Its purposes, as stated in the Articles of Incorporation are:

> "to establish, maintain and operate a computerized regional library center to serve the academic libraries of Ohio (both state and private) and designed so as to become a part of any national electronic network for bibliographical communication; to develop, maintain and operate a shared cataloging program based upon a central computer store; to create, maintain, and operate a computerized central catalog (inventory) of books and journals in the participating libraries; and to do such research and development related to the above as are necessary to accomplish and to extend the concept",

in short, to increase and make more efficient use of the bibliographical resources of the state's academic libraries. After consideration of some eleven candidates for the position of Director, Mr. Frederick G. Kilgour, one of the consultants, was appointed to this post and he began work in September, 1967.

In October, 1967 the Director presented a program of development to the Members at their first annual meeting and this program was adopted by the Board of Trustees of OCLC. The program had five major components: 1) shared cataloging, 2) bibliographic information retrieval, 3) circulation control, 4) serials control, and 5) a technical processing system.

II. Purposes of shared cataloging system

The shared cataloging sub-system, based on a central computerized catalog, is the first component to be implemented. It speeds cataloging and reduces cataloging costs in Member libraries 1) by taking advantage of cataloging performed elsewhere and therefore minimizing duplicate effort, and 2) by employment of labor-saving machines.

It has three main objects: 1) production of catalog cards, 2) performance as a union catalog, and 3) facilitation of inter-library loans. The catalog card production segment is now operational in an off-line mode. When it goes on-line in Summer, 1971, it will offer, at no extra cost to Member libraries, a central union catalog through which they can rapidly identify the location of materials in the data base in all other Member libraries. Once locations have been determined, the shared-cataloging sub-system will also be used to facilitate inter-library loans by rapidly transmitting requests for materials from one institution to another via on-line cathode ray tube (CRT) terminals.

III. Data base used. Creation of master file

Creation of a master file of catalog records is basic to operation of the shared-cataloging system. This master file is needed for production of catalog cards and other outputs that will follow, such as accession lists, spine labels, book cards and book pockets, etc., as well as for the union catalog activity.

The principle on which the card production system is based is the conversion of a Member library's current cataloging into machine-readable form. This process is accomplished by adding call number and Member library holdings information to an existing machine-readable record. OCLC computer programs then produce catalog cards from the master record for the Member library.

The computer programs, presently operating off-line, produce catalog cards from Library of Congress MARC II records which constitute the OCLC master file. At present MARC II covers English language monographs cataloged by LC since the beginning of 1969. All 1969 cards and cards in the "7" series are available. Some books with LC card numbers beginning with "68" or less are in the MARC II file because LC is cataloging books whose LC card numbers were assigned to the books prior to publication. LC has begun work on Project RECON whose purpose is to convert retrospective cataloging data to machine-readable form. By August, 1971, it hopes to complete the conversion of cards for English language monographs cataloged in 1968. The RECON Project will also contain a 5,000 title sample of older English language monographs and foregin language material in the Roman alphabet. Therefore, during the first year of OCLC's on-line operation there will be an average of four years of MARC data available to Members, 1968-1971. Data on hand indicates that a very high percentage of the acquisitions of Member libraries is published in the previous four years.

When the on-line system becomes operational in Summer, 1971, the data base will be enlarged to contain cataloging information contributed by Member libraries. In the on-line system a Member library that is unable to find a cataloging record for a particular title in the data base will do the original cataloging. This data will then be available to other Members which wish to catalog the same title. In addition, several Members are working on the conversion of their retrospective holdings, and these records will also be added to the data base.

IV. Definitions of terms

Since a number of specialized terms are used throughout this manual, definitions of the most commonly used terms are given here in the Introduction for ease of reference.

Added Entry: A secondary non-subject entry; used for joint authors, editors, titles, series, etc.

Dropped heading: A heading placed at the bottom of a catalog card to specify the guide card behind which that particular catalog card is to be filed.

Entry: A record of a bibliographical entity in a catalog or list; any approach through which a work can be located in a catalog.

Heading: The name, word, or phrase placed on a catalog record to provide a point of access to that record in the catalog.

Holding library: The library in which a book is to be shelved, regardless of where it is processed or the location of catalogs into which cards for that book are to be filed. By extension, a holding library can be any logical collection which requires some sort of special treatment, e.g., fiction, religious material, etc.

Holdings: The volumes, parts, or copies of a work in the possession of a library; the statement describing such volumes, parts, or copies. Partial holdings are incomplete subsets of what is described in the catalog record. Multiple holdings are complete sets, even if in only one copy, of what is described in the catalog record. Both types are determined on the Holding library level. Thus, if a Member library contains one complete copy of a multi-volume work with the volumes distributed among two or more Holding libraries, each Holding library has partial holdings. If one Holding library has all the volumes that the Member possesses of a multi-volume work, but such volumes are only a part of the set described in the catalog record, this is another example of partial holdings. Open-entry records are treated as partial holdings.

Indention: The position of the first character in a line in relation to the left edge of a card. OCLC produced cards use four indentions:

1. Left edge of card: This indention may be used for all or some lines of headings.

2. First indention: The card column where the first line of the main entry begins. First indention is also used for the second and subsequent lines of the title paragraph, collation, notes, and tracings paragraph; it may also be used for all or some lines of a heading. The exact location of first indention is determined by each Member library.

3. Second indention: The card column used for the first line of the title paragraph, and of the collation, notes, and tracings paragraphs. When the main entry is a title, the second and succeeding lines of the title paragraph begin at second indention. Second indention may also be used for all or some lines of a heading. The exact location of second indention is determined by each Member library.

4. Third indention: The card column used for the second and subsequent lines of name main entries. Third indention may also be used for all or some

lines of a heading. The exact location of third indention is determined by each Member library.

Location: The place where a work is shelved. This place can be the name of a Holding library or of a special collection within such a library. The contents of such a collection can be determined by use, e.g., Ref., by size, e.g., Quarto shelf; etc.

Main entry: The principal entry used, usually an author entry.

Pack: A group of finished cards arranged in filing order that is destined for a specific receiving catalog. Shelf-list packs are arranged in call number order while packs for other receiving catalogs are in alphabetical order. The alphabetical sort is on the first fifty-five characters of the first field and the first thirty characters of the second field, including blanks but not punctuation. When the first field is a main entry, the title is the second field. When the first field is a subject or added entry heading, the main entry is the second field. Members will soon be given the option of having this sub-sort be done on the title rather than on the main entry. Most common abbreviations, such as Dr. (Doctor), Mr. (Mister), and & (and) are filed as if spelled out. The sort field will contain the expanded form of words although they will be printed in their abbreviated form.

At present the sort key is unable to distinguish between names as authors and names as subjects so that a card with a name as main or added entry will not necessarily come before a card with that same name as subject.

Production of catalog cards: The creation of finished cards for a specific receiving catalog in a specific holding library from a generalized record, as opposed to reproduction which is the making of duplicate copies of only the basic unit card via a copying or printing process. In OCLC's production system, cards are produced in packs conforming to the individual requirements of each respective Member and its various receiving catalogs.

Receiving catalog: A systematically arranged group of cards such as a shelf list or dictionary catalog, listing the contents of a library or collection. If a public catalog has been divided into two systematic listings, e.g., one by author and title and the other by subject, it is considered to be two receiving catalogs. The existence of a separate filing sequence is what determines the existence of a receiving catalog, not physical location. Two sequences filed in the same drawer would be considered two receiving catalogs.

Subject entry: A secondary entry made to provide access to a work through words describing the concepts with which it deals.

Tracing: A record of all subject and added entry headings under which a work is represented in a catalog.

Off-line: As used by OCLC, this is a procedure that accumulates a group of records, submits them to a computer as a batch to be processed as a single job, and later also gets the output as a batch. There is no interaction between the computer and the individual user.

On-line: A method of computer operation in which each record is presented directly by the individual user to the computer and immediately processed. This mode of operation permits immediate inter-active communication between the computer and the user.

V. Procedures to be followed in case of error

It sometimes happens that incorrect catalog cards are received by Member libraries. If this occurrence happens because a wrong LC card number was obtained from the book or from some other standard source such as NUC, proof slips, ABPR, etc. (this happens with less than one percent of MARC Records), the Member should return the incorrect cards to OCLC for credit. Since the Library of Congress does not, at this time, include references from incorrect card numbers to correct ones on the MARC tapes, Members will be unable to get catalog cards from OCLC until they have learned from some source what the true number is. Once they have done so, another colored pre-punched card with the correct card number should be submitted. Part II of this manual contains the procedures to be followed in requesting cards.

If a Member suspects that an error resulted from some action of OCLC, it should notify the Center so that the source of the error can be corrected. The cards in question or a Xeroxed copy of them should be returned to the Center along with the notification and any other relevant material such as a facsimile of the title-page of the work concerned. The Member should then re-submit its request on new colored pre-punched cards to receive correct cards. Erroneous cards must be returned to OCLC if the Member wishes to receive credit for them.

VI. Bibliographical history of this manual

This manual revises and expands the information in two previous manuals issued by the Ohio College Library Center, the Preliminary Description of Catalog Cards Produced from MARC II Data, issued in September 1969, and the Instruction Manual for Catalog Production, issued in February 1970. The manual also calls upon material in various memoranda issued by the Center.

Part I of this manual is a detailed description of the catalog cards produced. While subject to continuing revision to better satisfy user needs, it describes the output that will be available from the on-line system which will be implemented in Summer, 1971 as well as from the present off-line system. Part II, which describes the procedures for requesting catalog cards, is applicable to the off-line system only.

Part I. CATALOG CARD PRODUCTION: OUTPUT OF SYSTEM

A. Physical description of cards

The catalog cards used by OCLC are standard 75 mm-by-125 mm size and are on Permalife card stock. An acid free card stock, Permalife has a life expectancy of more than 300 years and conforms to the USA Standard for Permanent and Durable Catalog Cards (Z85.1-1969). The cards are medium-weight and cream white in color.

Catalog cards may be considered a matrix in which lines, whether printed or blank, are rows, and the number of character positions available on each line constitutes columns. OCLC cards contain 17 rows and 48 columns. The print characters that fit on this matrix are pica size (10 characters per inch). Since catalog cards are 4.92 inches wide, this allows for 49 columns, of which 48 are utilized.

Plans are being made to use characters of a smaller point size. This will allow up to 23 rows or lines to fit on a card, thus necessitating fewer extension cards. Line length will not be affected by this change so card lines will continue to contain 48 characters.

The print train used to print catalog cards was created by the University of Chicago and modified by OCLC. It contains upper- and lower-case Roman letters, Arabic numerals (including a set of superscript numerals), and the diacriticals, punctuation marks, and other special characters shown in Figure 1.

OCLC uses a mylar ribbon on the printer. Mylar is a thin plastic film with ink on the back; it gives a sharper, better-defined impression than do fabric ribbons such as those used in typewriters.

Name	Graphic
DIACRITICALS	
Accent acute	´
Accent grave	`
Bolle "o", or Angstrom	°
Breve	˘
Cedilla	¸
Circumflex	^
Hacek	ˇ
Macron	¯
Tilde	~
Umlaut, or Dieresis	¨
PUNCTUATION	
Apostrophe, Prime, or Single quote	'
Colon	:
Comma	,
Exclamation point	!
Period, or Point	.
Question mark	?
Quotation marks	"
Semi-colon	;
SUPERSCRIPT CHARACTERS	
Asterisk	*
Minus	$^{-}$
Parenthesis, Left	$^{(}$
Parenthesis, Right	$^{)}$
Plus	$^{+}$
Virgule, or Slash	$^{/}$

Name	Graphic
SPECIAL SYMBOLS	
Ampersand	&
Asterisk	*
Brace, Left	{
Brace, Right	}
Bracket, Left	[
Bracket, Right	]
Cent sign	¢
Commercial "at" sign	@
Daggar	†
Degree symbol	°
Divide by sign	÷
Dollar sign	$
Equal sign	=
Greater than sign	>
Greater than or equal sign	≥
Large middle dot	•
Less than sign	<
Less than or equal sign	≤
Lozenge	◊
Minus, or Hyphen, or Dash	-
Multiply by sign	x
Not sign	¬
Not equal sign	≠
Overstrike slash	ø
Parenthesis, Left	(
Parenthesis, Right	)
Per cent sign	%
Plus	+
Plus or minus	±
Pound sign	#
Script ℓ	ℓ
Underscore	_
Vertical line	|
Virgule, or Slash	/

Figure 1. Diacriticals, punctuation, and other special symbols available on OCLC print train

B. Description of card format

1. Types of entries

This section describes the format characteristics of the data elements which appear on catalog cards, both those which are fixed and those whose appearance the Member library controls.

There are nine basic types of entries that can be included in packs of catalog cards. They are:

Main entries arranged by call number (Shelf-list)

Main entries

Topical subject entries

Personal and corporate name subject entries

Geographic subject entries

Personal and corporate name added entries

Title added entries

Author-type series added entries

Title-type series added entries

These basic types of entries can be further divided to the point where each variable field in the MARC format can be considered and treated as a different type of entry. (See Figure 9) Thus, under the general designation: Main entries, the following types can be differentiated: Personal name main entries (Field 100), Corporate name main entries (Field 110), Conference or meeting name main entries (Field 111), and Uniform title main entries (Field 130) Similiar distinctions can be made under each of the other basic types of entries, except for the shelf-list.

One or more types of entries may be included in a pack destined for a specific receiving catalog. Obviously, however, shelf-list entries can never be included in the same pack as the others. Each Member library decides on the format options desired for each type of entry card in each receiving catalog. See Part II for instructions on how to specify options desired.

2. Options

a. Difference between manual and computer-based systems

The catalog card production system of OCLC is an open-ended one. Options are available that not only permit each Member library to choose the position and format of most data elements on a catalog card but also enable it to choose different options for each different type of entry in each individual receiving catalog.

This flexibility, characteristic of computer-based systems, is an important difference between such systems and traditional manual systems where each additional option requires a greater expenditure of processing time and therefore increases costs. This time differential has two causes. One cause is the sheer magnitude of computer speeds as compared to human speeds; the other is that in manual systems alteration of bibliographic data produced by a central source must be done on a title-by-title basis.

In computer-based systems, however, variations in the format and placement of the bibliographic data elements can be programmed for particular data elements on all or certain selected types of entries for all or certain selected receiving catalogs.

This is not to say that permitting options does not increase costs in computer-based systems. The bringing into existence of a decision point does increase costs. This increase is a one-time cost associated with programming. Increase in production cost due to the existence of a decision point is insignificant. Once a decision point has been set up, however, the number of optional variations available there for users to choose among does not increase cost of card production.

Since variations in manual systems are done on a title-by-title basis, manual systems, in order to cut processing costs, tend to promote uniformity and make a virtue of this necessity by confusing uniformity with standardization. Standardization, however, is something different. Standards are documents which set down conditions which are to be fulfilled; they are rules or tests by which something can be measured or judged. The LC Rules for Descriptive Cataloging acts as a standard defining the order in which data elements on a catalog card should be given. The spacing between the various elements, however, is a matter for individual choice. The Subject Headings Used in the Dictionary Catalogs of the Library of Congress acts as a standard by specifying the choice and order of words used to express particular concepts.

The OCLC computer-based system complies with all existing relevant standards such as the ASCII code for information exchange, the ANSI standard for a format for bibliographical information on magnetic tape of which the MARC II communications format is one implementation, the standard for permanent and durable card stock, a standard library character set, a standard print train character set, and standardized unit cards. It does not require uniformity of output. Thus, the order of information on a catalog card is fixed: heading, main entry, title, author statement, edition statement, imprint, collation, series statement, notes, and tracings. The indention of these various elements; the spacing between them; the question of whether subject headings are to be all in upper case or in a combination of upper and lower case letters; the format of call numbers and their placement on the cards are among the decisions that individual libraries are free to decide for themselves even in manual systems as long as they produce their own cards. OCLC does not permit free choice among all possible choices, e.g., the print train used is fixed and red headings are not available, but it does permit free choice at almost every point where variation is possible. Options for card production already in the system make it possible to produce cards for a single title in about thirty-four hundred usable combinations of elements: three possible formats for LC class numbers, twenty-four options for relative position of different parts of call numbers, four for indentions, two for capitalizations, three for uniform titles, and two for tracings.

b. Summary of options available

Member libraries have available to them the opportunity of specifying almost everything they want on catalog cards. They are not even limited to one pattern of institutional options but may vary the pattern used from receiving catalog to receiving catalog and from one type of entry to another within a particular receiving catalog.

New options are constantly being added to the system. Members are free, at any time, to suggest options which they would like to see implemented.

A summary of available options follows. Most are described in greater detail in the discussion of various data elements given below.

The position of call number on catalog cards is fixed but various formats are permitted. The form and position of location symbols, holdings information, and oversize symbols is subject to Member library decision.

Libraries are free to choose either top-of-card or bottom-of-card placement for subject headings. If top-of-card placement is chosen, libraries have a choice between having them all in upper-case letters or in a combination of capitals and lower-case letters. For dropped headings, a Member library may choose among several methods for indicating how the entry element for that card is to be indicated.

There are four possible indentions: at left edge of card, first indention, second indention, and third indention. Libraries have a choice as to which indention a particular type of subject or added entry heading is to appear at. This choice of indention applies to all lines of a heading. Different choices can be made for the first line and for all succeeding lines of a heading. In the past the second and succeeding lines had to begin at the third indention and this will remain the default position. Each Member is free to specify where it wishes each indention to begin, with the 10th, 12th, and 14th character positions being the default locations.

Libraries have three choices as regards uniform titles: to accept all provided on the MARC record, to accept only those used by the Library of Congress, or to accept none at all.

As to tracings, Members are free to decide which cards are to bear tracings. The decision can be made differently for each type of entry in each receiving catalog. Libraries using dropped subject headings are limited, however, by their choice as to the type of entry element indicator which is to appear on their subject added entry cards.

Libraries have a choice as to how long they wish OCLC to hold their request cards for runs against new MARC tapes. The cycling period can be from one to thirty-six weeks. At the end of a Member's chosen cycling period, all request cards which had not been matched with a MARC record are returned to the Member library.

A Member may, if it wishes, resubmit a request for a particular title. If a request is resubmitted, it should be done on a new request card as the old request card will have been punched with a code for end-of-cycle week which would no longer be valid.

Some Members prefer to use the unit cards received through submittal of green or red request cards as main entry or shelf list cards. Such use is possible but must be specified as an option for the receiving catalog involved, *e.g.*, author-title public catalog or shelf-list. The Member library will then have the responsibility of adding the call number in call number position on the unit card.

3. Call numbers

Class numbers fit into a few basic patterns (Dewey: three numerals which may be followed by a decimal point and another string of numbers of varying length; LC: one to three alphabetic characters followed by from one to four numeric characters which in turn is followed by a point and additional numbers and/or one or two blocks of alphabetic characters followed by numerals) Book numbers, on the other hand, are almost completely uncontrolled in the number and variety of character strings they may contain, *e.g.*, one or more blocks consisting of upper-case alphabetic characters followed by numerics; lower-case alphabetic characters; dates; document or volume numbers; and internal punctuation marks such as points, colons, virgules, and blank spaces. (See Figure 2 for examples) It is therefore difficult to devise standard formats which can be applied to all call numbers. The variations depend on the number and type of character strings appearing in the book number. Examples of possible formats are given in Figure 2.

A limitation that must be observed in formatting call numbers is that no line of the call number can contain more than eight (8) characters, including spaces. The left edge of the call number is against the left edge of the catalog card. Since the first indention usually begins in the tenth character position, this limitation allows at least one blank column to occur between the call number and the main body of text on the card. There is at least one blank line above and below each call number. Additional call numbers appear in the left margin of the card next to that data element to which they refer, *e.g.*, series statement, dashed-on entry, etc., except that at least one blank line must occur between the different call numbers. If an extension card contains information relating to this data element only, only the additional call number appears on the extension card.

Member libraries using LC call numbers may choose from among three basic formats for the class number part of the call number. An example of each format is given in Figure 2. In the first, the alphabetic and numeric segments of class numbers are placed on separate lines. In the second, they are placed on the same line with a blank space inserted between the two segments. The third format is the same as the second except that there is no blank space separating the alphabetic characters from the numeric ones. A variation of each format puts each decimal point and its following numerals on a line of its own.

I. Library of Congress

Basic formats for class numbers

ML 156.2	ML 156 .2	ML 156.2	ML 156 .2	ML156.2	ML156 .2

Sample call numbers based on above class number formats

DR 340.3 .N4 A313 1969	DR 340.3 .N4A313 1969	DR 340 .3 .N4 A313 1969	DR 340 .3 .N4A313 1969
DR 340.3 .N4 A313 1969	DR 340.3 .N4A313 1969	DR 340 .3 .N4 A313 1969	DR 340 .3 .N4A313 1969
DR340.3 .N4 A313 1969	DR340.3 .N4A313 1969	DR340 .3 .N4 A313 1969	DR340 .3 .N4A313 1969

II. Dewey Classification numbers

301.45	301 .45196	301 . 45196074	301 .45196 07471

III. Superintendent of Documents Classification numbers

LC 2.2: IN25	LC 2 .2 :In25	Pr 36.8: Url/1/ R31/8	Pr 36 .8 :Url /2 /R31 /8

Figure 2. Examples of call number formats

If a library using Dewey class numbers puts a class number with more than eight characters on one line, e.g., 954.0350924, the computer will break it up so that the numbers preceding the decimal point appear on one line and the decimal point and the numbers which follow it appear on the next line up to a maximum of eight characters. If the decimal point and following numbers consist of more than eight characters, several alternatives are available. The decimal point can appear alone on the second line and eight numeric characters on the third line, or the decimal point and first seven numerals can appear on the second line and the remaining numerals on the third line.

Libraries accepting LC call numbers as given by LC may decide how they wish the most frequently occurring types of character strings in the book number to be formatted. One alternative is to have each successive block of alphabetic plus numeric characters be on its own line, while another is to have two such blocks on the same line.

Libraries creating their own call numbers, including libraries which accept Dewey or LC class numbers and add their own book numbers as well as those which create complete call numbers, format each individual call number on a yellow request card when they request catalog cards for that particular title. (See Part II) Care must be taken, however, to see that no line of the call number includes more than eight characters, including spaces. Length of call number is related to column position chosen for first indention. If first indention is in column ten, columns one through eight can be allocated to call numbers, with column nine remaining blank to separate call numbers from the body of the card.

There are two types of call numbers: primary call numbers and secondary call numbers. A primary call number applies to a work as a whole. A secondary call number is usually associated with a specific paragraph of bibliographical text, other than main entry or title paragraph, most often a series statement or note. Such notes usually refer to indexes, supplements, etc., but they may also refer to added copies given different call numbers to suit the needs of different groups of library users.

The first line of the primary call number is usually on line three of the card although different placements are possible if a library wishes to have them. The first line of a secondary call number associated with a specific paragraph starts on the same line as its corresponding paragraph unless it is necessary to drop it one or more lines to insert a blank line between the end of the previous call number and the beginning of the new one. Any additional secondary call numbers associated with this work are printed below the first one, always allowing for at least one blank line between call numbers. (See Figure 3)

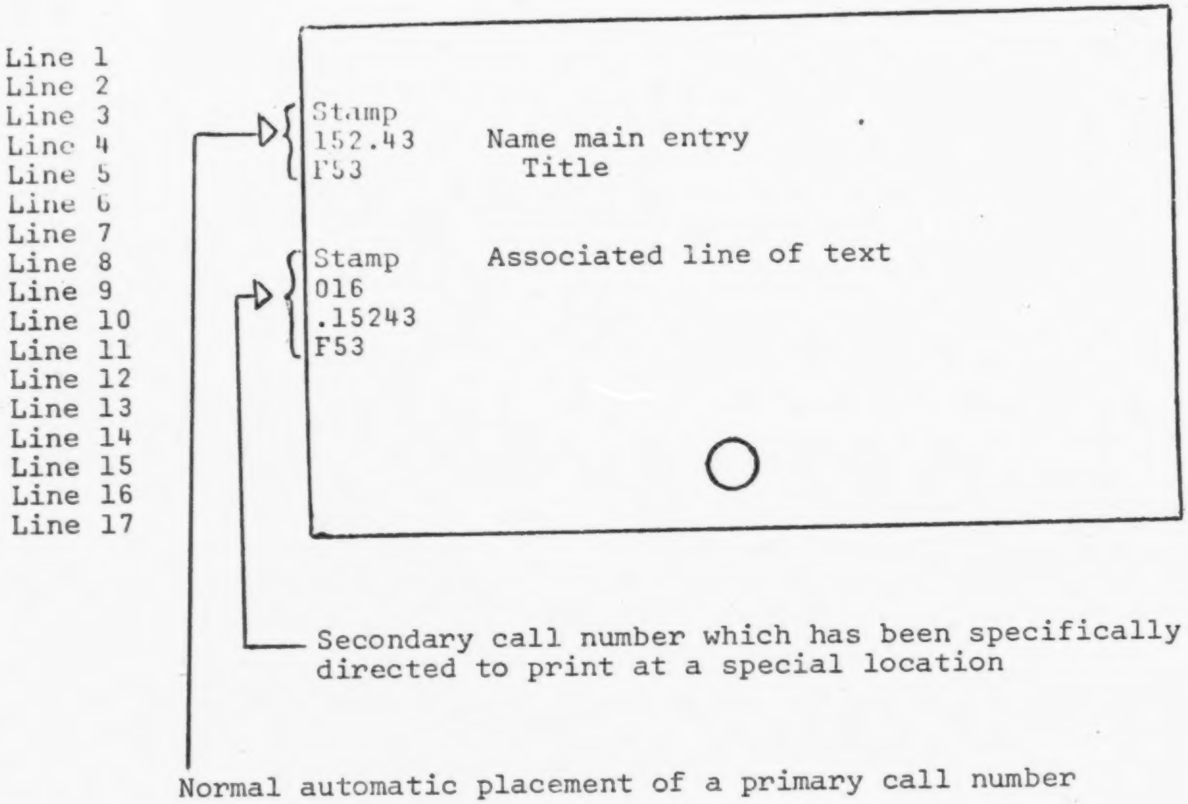

Line 1
Line 2
Line 3
Line 4
Line 5
Line 6
Line 7
Line 8
Line 9
Line 10
Line 11
Line 12
Line 13
Line 14
Line 15
Line 16
Line 17
Stamp
152.43
F53
Name main entry
Title
Stamp
016
.15243
F53
Associated line of text
Secondary call number which has been specifically directed to print at a special location
Normal automatic placement of a primary call number

Figure 3. Call number placement

Holdings information may appear on from one to all types of entries. Figure 4 shows twenty-four options for relative positions of call numbers, location statements, and holdings information. The phrase "2 cop" is used as an example of holdings information while "Chem Lib" and "Ref" are used as examples of locations. The first column of six options may be employed by libraries not having departmental libraries or special collections by simply deleting "Chem Lib" and/or "Ref" in each option. If a Member library wishes a blank line to appear between any two elements, the location of this blank line should be indicated when requesting a particular option. If none of the twenty-four options corresponds with the practice of a Member library, it may request its own option or options for its various receiving catalogs.

Although oversize indication is not presently part of the catalog card production system, oversize symbols could automatically be added to call numbers on the basis of the height of the book as recorded in the collation statement. To effect this capability, OCLC would need to have from each library the oversize symbols it employs and the book heights related to each symbol. An example of such a report follows:

Oversize Symbol	Height in Centimeters
F	29-40
FF	41-60
FFF	61-

Members may set up different size categories for different Holding Libraries, e.g., q for books 28 cm. and over except for Art Library where quartos are 32 cm. and over.

Each library would also have to indicate where it places the oversize symbol in relation to the call number, e.g., on a separate line above the call number, before or after the class number, before or after the book number, on a separate line below the call number, or as a replacement for the entire call number. If the oversize symbol appears on a separate line, its relationship to location and holdings statements would also have to be indicated. If the oversize symbol appears as part of the call number, Members would have to allow for the symbol within the eight characters permitted on a line of the call number.

Libraries not desiring to have oversize symbols attached to call numbers should inform OCLC of this fact.

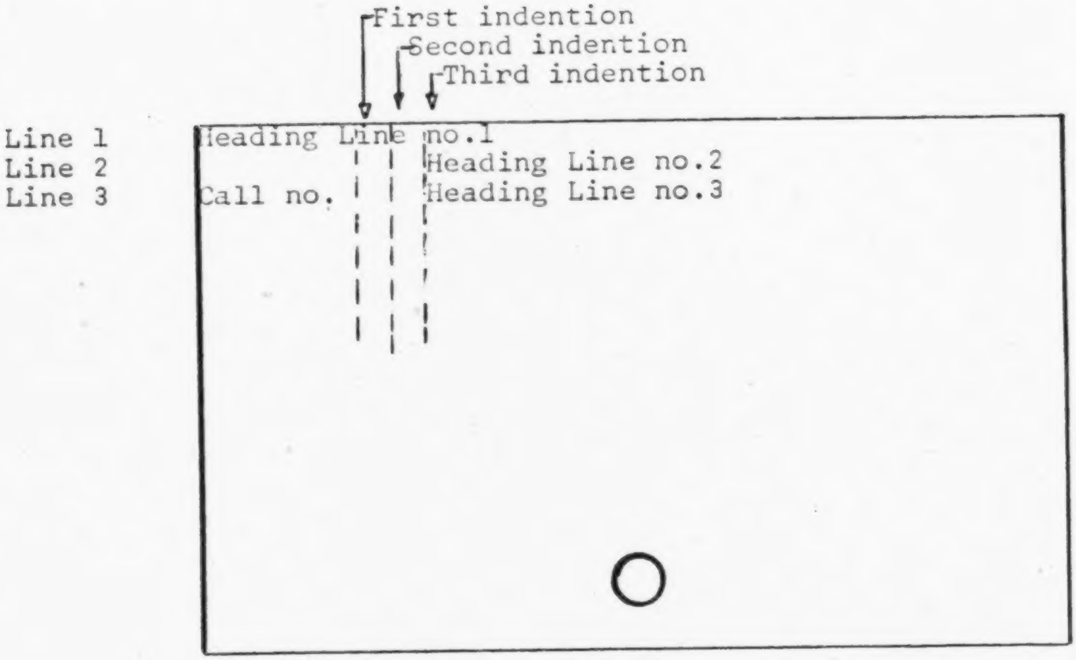
Positions of Call Number, Location Stamps and Holdings Information.

24 April, 1970

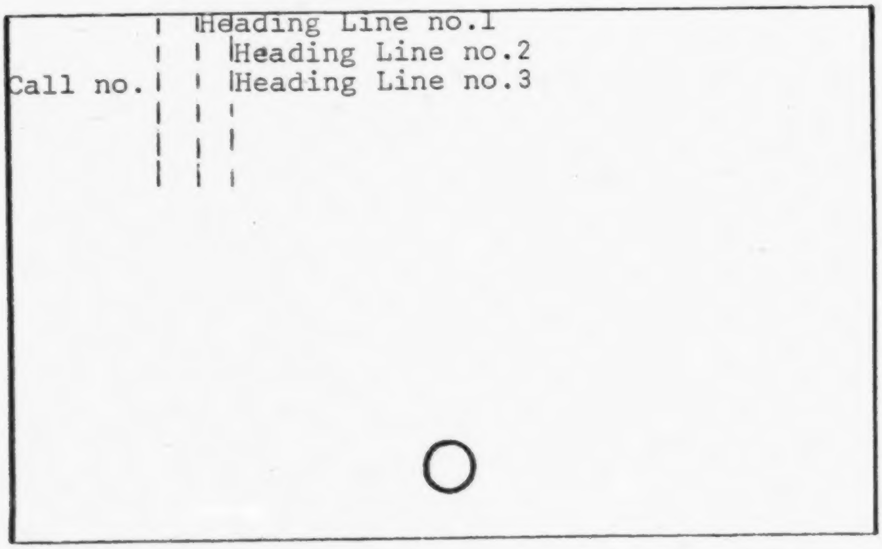
Chem Lib (call no.) 2 cop Ref	(call no.) Chem Lib 2 cop Ref	2 cop (call no.) Chem Lib Ref	Ref (call no.) 2 cop Chem Lib
Chem Lib (call no.) Ref 2 cop	(call no.) Chem Lib Ref 2 cop	2 cop (call no.) Ref Chem Lib	Ref (call no.) Chem Lib 2 cop
Chem Lib 2 cop (call no.) Ref	(call no.) 2 cop Chem Lib Ref	2 cop Chem Lib (call no.) Ref	Ref 2 cop (call no.) Chem Lib
Chem Lib 2 cop Ref (call no.)	(call no.) 2 cop Ref Chem Lib	2 cop Chem Lib Ref (call no.)	Ref 2 cop Chem Lib (call no.)
Chem Lib Ref (call no.) 2 cop	(call no.) Ref Chem Lib 2 cop	2 cop Ref (call no.) Chem Lib	Ref Chem Lib (call no.) 2 cop
Chem Lib Ref 2 cop (call no.)	(call no.) Ref 2 cop Chem Lib	2 cop Ref Chem Lib (call no.)	Ref Chem Lib 2 cop (call no.)

____
Institution

Figure 4


First indention
Second indention
Third indention
Line 1
Line 2
Line 3
Heading Line no.1
Heading Line no.2
Call no.
Heading Line no.3

A. Heading starting at left edge of card


Heading Line no.1
Heading Line no.2
Call no.
Heading Line no.3

B. Heading starting at second indention

Figure 5: Heading placement. Note: Heading lines 2 and 3 are shown starting at third indention but Members may choose to have such lines start at any of the four indention positions.

4. Headings

Seven basic types of entries - three subject entries and four added entries - may appear as headings added to unit cards. Each Member library decides on several factors related to headings, such as their placement on catalog cards, their indention, and kind of letters used. Different decisions can be made as regards each type of entry in each receiving catalog.

The decision as to placement of headings at either the top of a card or at the bottom in tracings position applies to subject headings only. Added entry headings are at the tops of cards.

There is space for up to three lines of headings at the top of cards. At a later stage in the development of the shared cataloging system, more flexible vertical formatting will be possible, allowing space for an optional maximum number of lines of heading at the top of a card. When this is effected, the number of lines allotted to a heading will be able to vary according to the length of the heading. Libraries will also be able to decide whether or not they wish blank lines to be inserted between various data elements such as heading and main entry, title paragraph and first note, last note and tracings, etc.

Libraries using dropped subject headings indicate the subject heading in the tracings that corresponds to the guide card in the catalog behind which a particular subject card is to be filed. The subject heading under which a card is to be filed may be designated in one of four ways. See example of each below.

(1) Print all tracings and place an optional character in the space preceding the first word of the appropriate subject heading, between the Arabic numeral and the heading. The default character will be a "Greater Than" sign.

(2) Same as the first with the addition that the appropriate subject heading is printed entirely in upper case.

(3) Print all tracings, putting the appropriate subject heading in upper case.

(4) Omit the tracings paragraph except for the subject heading under which that particular card is to be filed.

Examples:

(1) 1. Writing - History 2.> Alphabet I. Title

(2) 1. Writing - History 2.> ALPHABET I. Title

(3) 1. Writing - History 2. ALPHABET I. Title

(4) Alphabet

The next two decisions, indention and kind of letters, apply only to headings placed at the tops of cards. A Member library may decide to have the first line of a heading begin at one of four positions: at left edge of the card, first indention, second indention, or third indention. A separate decision is made about the indentions of the second and succeeding lines. What constitutes first, second and third indention is up to each member library to decide for itself. (See Figure 5)

The decision made about indention can be different for each type of entry in each receiving catalog. For example, topical subject headings could start at the left edge, name as subject at first indention, and geographic subjects at second indention. Personal and corporate name added entries could be at first indention, title added entries at second indention, author-title series added entries at first indention, and title series added entries at third indention. Another receiving catalog in the same Member library could have headings with different indentions.

In the case of author-title headings, separate options are available for the first and subsequent lines of each element, *i.e.*, of author and title. See the following examples.

1.	Pennsylvania. University. Dept. of History. Translations and reprints from the original sources of history, 3d ser., v.6.	Author and Title run-on together. Author at 1st indention and subsequent lines at 2d indention.
2.	Pennsylvania. University. Dept. of History. Translations and reprints from the original sources of history, 3d ser., v.6.	Author and title listed separately, but all lines after first line of author have same indention.

4. Pennsylvania. University. Dept. of
History.
Translations and reprints from
the original sources of history,
3d ser., v.6.

5. Pennsylvania. University. Dept. of
History.
Translations and reprints from
the original sources of history,
3d ser., v.6.

Author and title listed separately. First line of each has different indention, but subsequent lines of both have the same indention which differs from that of the first lines. In Examples 4 and 5, author first lines begin at 1st indention. In Example 4, title begins at 3d indention with subsequent lines of both elements at 2nd indention. In Example 5, title begins at 2nd indention and subsequent lines of both elements at 3d indention.

A third decision has to do with form of letters to be used in headings. Each of the seven types of headings that appear at the top of a card can be in either a combination of upper and lower-case letters or all in upper-case. Again, the decision can be different for each type of entry in each receiving catalog.

Another possible option is pertinent chiefly for the online system. According to Rule 133B of the Anglo-American Cataloging Rules all abridged titles must begin with the first words of the title. In conformity with this rule the MARC II system provides for production of abridged-title added entries only when such abridgements include the first words of the title. OCLC, however, will provide for production of added entry cards for abridged or striking titles that do not include the first words of the title.

5. Main Entry

The basic reference position on a catalog card is the column where the first line of the main entry begins. This position is the first indention.

OCLC produced cards have the main entry on the fourth line of the card. When variable vertical formatting becomes operational, this row location of main entries will vary so as to accomodate headings of differing lengths.

If a Member requests extra main entry cards for a special purpose, e.g., to report works to NUC, for donor or provenance files, etc., the computer can be programmed to produce them.

6. Uniform title

The first line of a uniform, or conventional, title starts a new paragraph beginning at second indention with subsequent lines beginning at first indention. If a uniform title is present, it is enclosed by brackets and appears between main entry paragraph and title paragraph.

MARC II records contain all uniform titles provided for by the AACR, but LC does not use all of these on its printed cards, preferring to follow its pre-AACR practice. A statement describing LC practice appears on p. 145 of the AACR. Member libraries may choose to receive 1) no uniform titles, 2) only those uniform titles used by LC, or 3) all uniform titles prescribed by the AACR. The decision made can vary from receiving catalog to receiving catalog.

7. Title paragraph

The usual title paragraph begins at second indention with following lines at first indention. However, when the title is the main entry it begins at first indention and all succeeding lines of the title paragraph are at second indention.

Title paragraphs include the standard elements of title, sub-title, author statement, edition statement, and imprint. The latter element includes place of publication, name of publisher, and date of publication.

8. Collation

The first line of the collation starts a new paragraph which begins at second indention with subsequent lines at first indention. The collation may consist of a statement of size of the work in pages, leaves, or volumes; mention of important illustrative matter; and height in centimeters. The collation format can accommodate variations found in standard cataloging practice. Thus, the collation of a foreign book cataloged under the Shared Cataloging Program (Title IIC of the Higher Education Act of 1965) may contain the price in terms of the local currency of the source country.

9. Series statement

If there is available space remaining on the last line of the collation statement, the first series statement follows on that same line enclosed within parentheses. If there is insufficient space on that line, the first series statement begins on a new line starting at first indention and enclosed in parentheses. Subsequent lines of the first series statement begin at first indention. Beginning lines of each additional series statement start a new paragraph at second indention with subsequent lines at first indention. Only the first series statement is enclosed in parentheses.

10. Notes

The first line of each note starts a separate paragraph beginning at second indention with subsequent lines at first indention. No blank line appears between the collation and/or series statement and the first note. Notes that apply to all copies of a book appear on each catalog card produced. Notes that apply only to copies at the Library of Congress, such as "Bound with" and "Contents (incomplete)", are omitted.

In addition, a Member library may have notes that apply to its own individual copies that it wishes to have appear on its catalog cards. OCLC will punch the individual Member library's notes onto brown cards and will process them prior to actual printing of catalog cards for the Member library. These additional notes will be retained with the OCLC machine-readable record.

11. Tracings

The first line of the tracings paragraph begins at second indention with succeeding lines at first indention. A sequential Arabic numeral precedes each subject tracing and a sequential Roman numeral precedes each added entry tracing.

The tracings paragraph begins on the line immediately after the last note without an intervening blank line unless the Member library specifies differently.

Member libraries decide whether tracings are to appear on every type of entry for its various receiving catalogs or only on certain selected ones. For example, a library using a divided catalog might have three receiving catalogs; an author-title catalog, a subject catalog, and a shelf-list. The library decides which entries in each of the three catalogs are to carry tracings. For an author-title catalog the

Main entry card, with tracings

N
70 Arnheim, Rudolf.
.A693 Visual thinking. Berkeley,
University of California Press [1969]
xi, 345 p. illus. (part col.) 26
cm.
Bibliography: p. 325-338.
1. Visual perception. 2. Art--
Philosophy. I. Title

OMC MRCpc 71-76335

Subject added entry card, without tracings

ART--PHILOSOPHY.

N
70 Arnheim, Rudolf.
.A693 Visual thinking. Berkeley,
University of California Press [1969]
xi, 345 p. illus. (part col.) 26
cm.
Bibliography: p. 325-338.

OMC MRCpc 71-76335

Figure 6. Cards showing tracing variations

library might decide to have tracings on the shelf-list card and on the subject heading cards. (See Figure 6) A decision to include tracings necessitates the listing of all headings traced for that work. It is not now possible to trace only selected added entries such as subjects or titles only. The option to have tracings on subject entry cards applies only to receiving catalogs where a decision has been made to place subject headings at the top of a card. Libraries using dropped subject headings should see the options list in Part I, B, Section 4, which deals with Headings.

12. Bottom line

The bottom line of an OCLC produced catalog card contains the Member library's NUC symbol, a user option area, pack identification symbols (*i.e.*, receiving catalog identification), and the unique machine-readable catalog-record identification number.

Starting at the left edge of the cards, the first six character positions are reserved for the standard National Union Catalog identification assigned to each Member library. This is followed by a blank space.

The next twenty-two character positions are alloted to a user option area. Member libraries could place such data as accession numbers here. In the on-line system the name of the library providing original cataloging data for a work could be put here. The data put in the user option area is established by Holding libraries. For each Holding library a different item of data could be used. This information can be selectively included or excluded on the different types of entries as determined by profiles.

Unit cards requested by libraries not copying Library of Congress call numbers but using LC or Dewey class numbers will carry the LC call number or the Dewey class number in the user option area. Libraries using Dewey class numbers may also have the option of getting the LC call number or LC class number in the user option area whenever a Library of Congress MARC record does not contain a Dewey Decimal class number. If a Library of Congress call number exceeds twenty-two positions, characters 23 and higher will be omitted; this truncation will occur, of course, at the end of the call number where it presumably would not interfere in the procedures of a library not using the entire Library of Congress call number.

After an intervening blank space the next five character positions are allocated to pack definition symbols. These symbols indicate which receiving catalog should receive the card. They are assigned by OCLC on the basis of the profiles each member submits specifying the requirements of each of its receiving catalogs.

The last fourteen space positions are allocated to a blank followed by a thirteen-space unique machine-readable catalog-record identification number. Usually the LC card number will serve as this unique identification number. In the on-line system, whenever an LC card number is not available, an OCLC sequential number will be used instead. When extension cards are necessary the phrase "See next card" will replace the unique identification number on all but the last card produced for an entry.

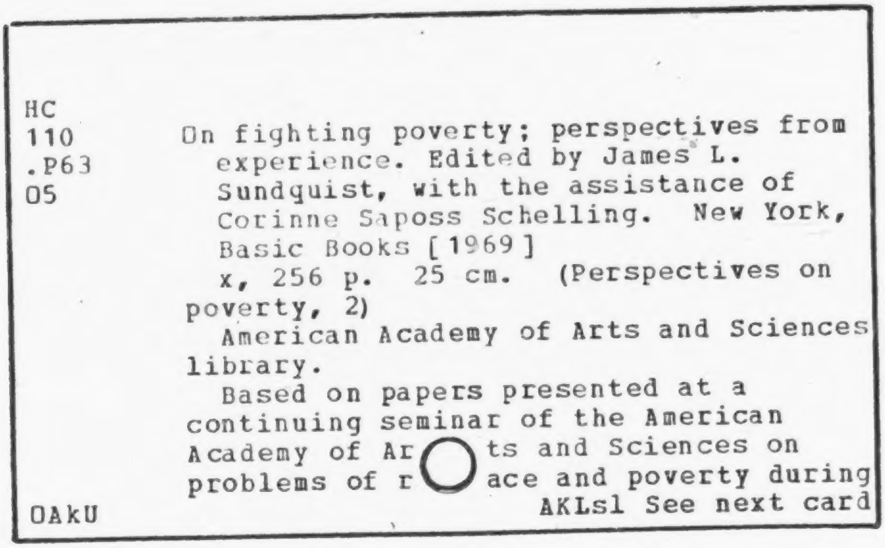
13. Extension cards

When cataloging information for a work fills more than one card, production of extension cards occurs. The text of the catalog card is continued with more cards (up to a maximum of approximately ten cards) until the catalog record is complete.

As shown in Figure 7, the first card closes with the statement "See next card" on the bottom line at the extreme right, replacing the unique identification number. Each additional extension card closes in the same way until the last which will have the identification number in its usual position.

Each extension card opens with a heading, if appropriate, and the main entry in normal position. Name main entries are not abbreviated. Following the main entry is an abbreviated title (unless the full title is quite short) in regular title position. The length of the abbreviated title varies as OCLC programming submits the full title to several tests to discover where the best cut-off point is located. The maximum length is one line. The abbreviated title is followed by three dots to indicate that it is incomplete. Next comes the last item in the imprint (the date) and the card number.

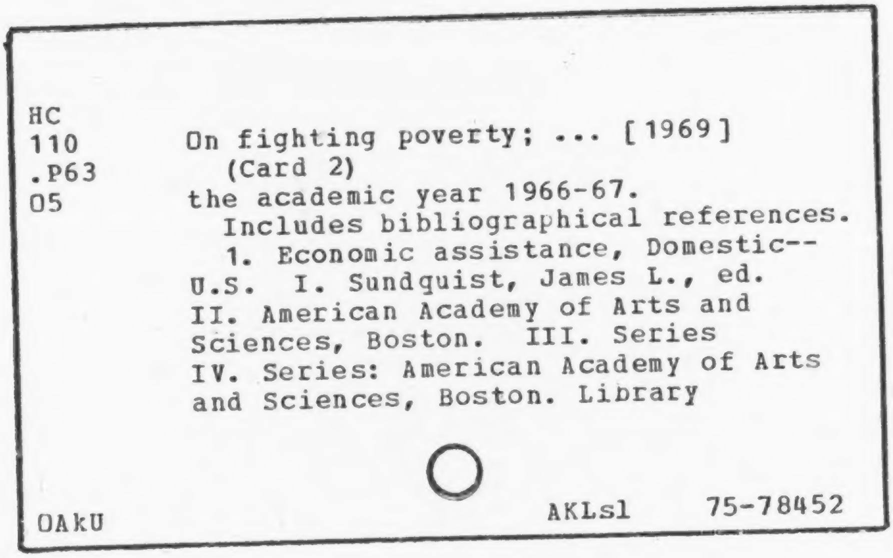
Title main entries on extension cards consist of a brief title, three dots to indicate that it is incomplete, date, and card number.



HC
110
.P63
O5

On fighting poverty; perspectives from
experience. Edited by James L.
Sundquist, with the assistance of
Corinne Saposs Schelling. New York,
Basic Books [1969]
x, 256 p. 25 cm. (Perspectives on
poverty, 2)
American Academy of Arts and Sciences
library.
Based on papers presented at a
continuing seminar of the American
Academy of Arts and Sciences on
problems of race and poverty during

OAkU AKLsl See next card



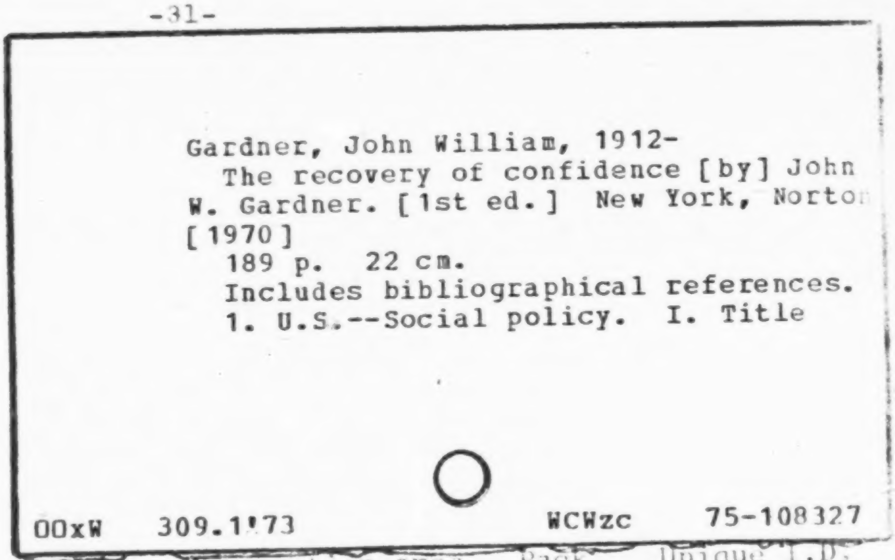
HC
110
.P63
O5

On fighting poverty; ... [1969]
(Card 2)
the academic year 1966-67.
Includes bibliographical references.
1. Economic assistance, Domestic--
U.S. I. Sundquist, James L., ed.
II. American Academy of Arts and
Sciences, Boston. III. Series
IV. Series: American Academy of Arts
and Sciences, Boston. Library

OAkU AKLsl 75-78452

Figure 7. Extension cards

Dewey class number in user option area.



Gardner, John William, 1912-
The recovery of confidence [by] John W. Gardner. [1st ed.] New York, Norto
[1970]
189 p. 22 cm.
Includes bibliographical references.
1. U.S.--Social policy. I. Title

OOxW 309.1'73 WCWzc 75-108327

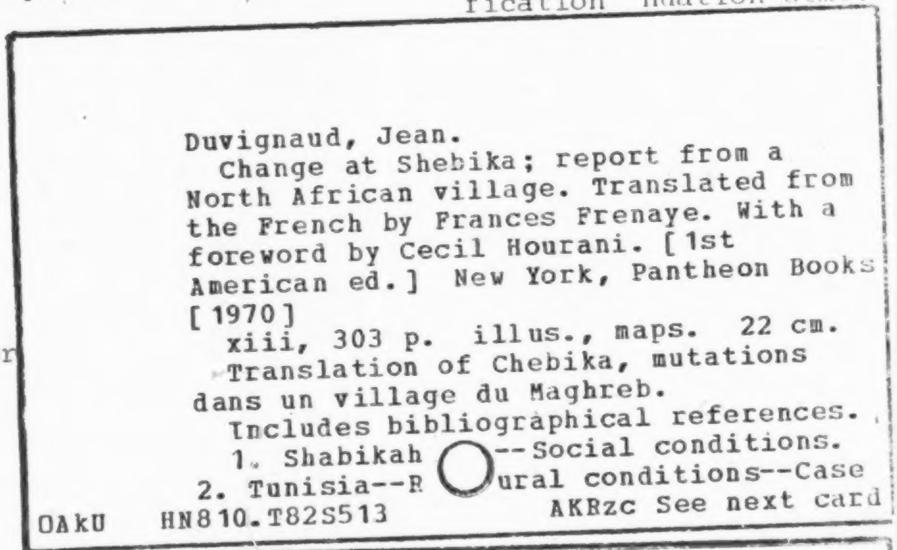
NUC symbol

User option area

Pack identification

Unique I.D. no. or continuation stmt.

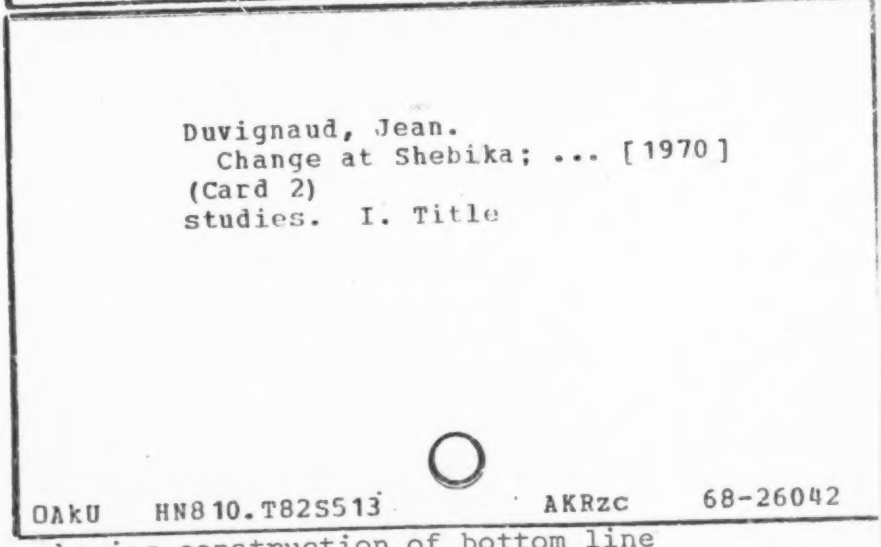
LC call number in user option area. "See next card" in identification number area.



Duvignaud, Jean.
Change at Shebika; report from a North African village. Translated from the French by Frances Frenaye. With a foreword by Cecil Hourani. [1st American ed.] New York, Pantheon Books
[1970]
xiii, 303 p. illus., maps. 22 cm.
Translation of Chebika, mutations dans un village du Maghreb.
Includes bibliographical references.
1. Shabikah --Social conditions.
2. Tunisia--Rural conditions--Case

OAkU HN810.T82S513 AKRzc See next card

LC call number in user option area. LC card number as identification number.



Duvignaud, Jean.
Change at Shebika; ... [1970]
(Card 2)
studies. I. Title

OAkU HN810.T82S513 AKRzc 68-26042

Figure 8. Unit cards, showing construction of bottom line

Variable Field Tags

Control Numbers

*010	LC Card Number
*011	Linking LC Card Number
015	National Bibliography Number
*016	Linking NBN
*017	U. S. Copyright Number
020	Standard Book Number
*021	Linking SBN
025	Overseas Acquisitions Number
*026	Linking OAN Number
*035	Local System Number
*036	Linking Local Number
040	Cataloging Source
041	Languages
*042	Search Code
*043	Geographic Area Code

Knowledge Numbers

050	LC Call Number
051	Copy Statement
060	NLM Call Number
070	NAL Call Number
*071	NAL Copy Statement
*072	NAL Subject Category Number
*080	UDC Number
*081	BNB Classification Number
082	Dewey Decimal Classification Number
*086	Supt. of Documents Classification
*090	Local Call Number

Main Entry

100	Personal Name
110	Corporate Name
111	Conference or Meeting
130	Uniform Title Heading

Supplied Titles

240	Uniform Title
241	Romanized Title
*242	Translated Title

Title Paragraph

245	Title
250	Edition Statement
260	Imprint

Collation

300	Collation
350	Bibliographic Price
*360	Converted Price

Series Notes

400	Personal Name-Title (Traced Same)
410	Corporate Name-Title (Traced Same)
411	Conference-Title (Traced Same)
440	Title (Traced Same)
490	Series Untraced or Traced Differently

Bibliographic Notes

500	General Notes
501	"Bound With" Note
502	Dissertation Note
*503	Bibliographic History Note
504	Bibliography Note
505	Contents Note (Formatted)
*506	"Limited Use" Note
520	Abstract or Annotation

Subject Added Entries

600	Personal Name
610	Corporate Name (excluding political jurisdiction alone)
611	Conference or Meeting
630	Uniform Title Heading

LC Subject Headings

650	Topical
651	Geographic Names

Figure 9.

Continued on next page

Other Subject Headings

*6 6 0	NLM Subject Headings (MESH)
*6 7 0	NAL Subject Headings
*6 9 0	Local Subject Heading Systems

Other Added Entries

7 0 0	Personal Name
7 1 0	Corporate Name
7 1 1	Conference or Meeting
7 3 0	Uniform Title Heading
7 4 0	Title Traced Differently

Series Added Entries

8 0 0	Personal Name-Title
8 1 0	Corporate Name-Title
8 1 1	Conference or Meeting-Title
8 4 0	Title

*The Library of Congress will not supply data for these fields at present.

Figure 9.

C. Catalog production costs

Since methods of computing cataloging costs are not standardized, it is difficult to make cost comparisons between computer-based and conventional systems, or between conventional systems in different libraries. The costs given below for various manual systems apply only to the libraries where the studies were made and are given here simply as an indication of how costs may run in manual systems. All systems described assume the use of LC-provided cataloging data, either in the form of LC card sets or as locally produced sets based on either a single LC card, a proof slip, an NUC entry, etc. Titles which lack LC cataloging data have customarily been given original cataloging by each library acquiring them. Since the OCLC data base under the off-line system contains only LC cataloging records, all titles for which such records are lacking must still be cataloged locally. The costs of such original cataloging are therefore not relevant to this comparison and are not considered.

The elements involved in the cataloging process are searching for bibliographical information, cataloging proper, card preparation and production, the sorting and filing of the finished cards into various receiving catalogs, and the physical preparation of the book. This last element will not be considered here since it is unaffected by the existence of OCLC.

Searching is partly an acquisitions function, when it involves checking to verify and complete the bibliographic details supplied by a requestor so as to adequately identify the book for acquisitions purposes, and to check in the library's catalog and on-order file to determine if the title has already been ordered or received. Any cataloging data located at this stage of the operation is a by-product since it is not necessary for the acquisitions function.

Cataloging searching involves the effort to obtain bibliographical data that will be of use in cataloging the work. This usually means an attempt to find a copy of the cataloging record made by the Library of Congress for that work. Once such information is located, it is copied and the source noted. The searching stage ends here and the cataloging stage begins.

A cataloger takes the cataloging data located in the search step and compares it with the book to see if they agree, makes any changes necessary in the descriptive cataloging to ensure that it fits the book in hand, assigns call number if an LC number is not accepted as given, checks the shelf list to see if the number has already been used, checks the subject headings and name added entries against authority files, makes additions to the appropriate records in the serial file if the title is part of a series, and, if an actual LC card is not available, prepares a worksheet for the use of clerks who will prepare the cards.

The card preparation and production stage includes the ordering of LC cards or the preparation of master cards and the reproduction of master cards by some process, the adding of headings and call numbers to cards, and the proof-reading of the cards.

In the sorting and filing stage the sets of cards produced for each book are divided up according to the catalogs that are to receive them, sorted into filing order, and filed.

How does OCLC fit into this pattern of activity? Under the off-line system OCLC has no effect on acquisitions searching which still must be done before a title is acquired. Cataloging searching will not be needed, however, as OCLC will provide its Members with a unit card and/or packs of cards with full bibliographical information.

If a library accepts LC cataloging as given without checking, the packs can be filed immediately after arrival, thus eliminating the cataloging and card preparation and production steps entirely, and also eliminating the pre-filing sorting.

Libraries wishing to check the LC cataloging will still save the cataloging searching step and can use the unit card or one of the final pack cards (usually the shelf list card) as the source of cataloging data. If the cards sent by OCLC are not changed, the shelf list might still be checked for duplicate call numbers and authority files updated to show new headings and the necessary cross-references made. Card preparation and production will still be eliminated unless a decision is made to change the OCLC-produced card in some way. In that event the cards in question will have to be pulled from their various packs, changed, proofed, and resorted preparatory to filing.

From this brief survey it appears that the steps OCLC can save its Members are cataloging searching (in all cases), cataloging, card preparation and production, and sorting. What are the costs of these elements?

Searching costs are high. Of a total processing cost of $10.26 for adding a book to the Columbia University Science Libraries in 1965, $2.18 or over 21% was devoted to searching, and $1.07 of this searching cost was attributed to cataloging searching. A 1966 study at the Brooklyn Public Library showed that of a total of $3.77 for cataloging and preparation of a new title, $1.51 or 40% was devoted to various searching activities. A 1969 report of the early operations of the Colorado Academic Libraries Book Processing Center showed, by contrast, a total cost for labor alone of $1.88 per volume of which 23.5¢ or 12.5% was allocated to searching and searching-related activities.

Cataloging costs are also high. After adjustment of the Columbia figures to remove that portion of the cataloging costs attributable to original cataloging, $1.38 or over 18% of the adjusted cost was allocated to cataloging. At Columbia cataloging of monograph titles for which LC information is available is a clerical task. In libraries which assign professional catalogers to this task the cost would be higher.

Costs of producing cataloging cards and sorting them show less variation. A 1963 report on the Air Force Cambridge Research Laboratory (AFCRL) Research Library showed that the cost of preparing and producing seven cards based on LC cataloging was $1.16. This figure included order routines for LC cards and the typing of headings on them after receipt. Sorting and filing added another $0.30 to the cost. Allocating a third of this to sorting, the total cost of producing cards ready to file was $1.26, or $0.18 per card.

Other studies made at Sacramento State College (1969) and the University of Toronto for the Ontario New Universities Libraries Project (1965) showed per card costs for preparation and production of 18.0¢ and 19.3¢. With their sorting and filing costs prorated in the same proportions as those for AFCRL, cost per card was 19.7¢ and 20.7¢ respectively.

Even though the studies producing these figures were made over a six year period, with differences in the cost of labor and materials, there is substantial agreement among them, especially the latter two. Adjustment of the 1963 figures from the AFCRL study to take into account a 13.5%

rise in the cost of living between 1963 and 1968 would raise the AFCRL cost per card to 20.4¢ bringing it into very close alignment with the cost figures of the other two libraries.

The cost of producing catalog cards at OCLC varies from week to week. Twenty-four elements are considered in computing the cost per card. Some cost elements vary directly according to the number of cards produced in any one week, but other cost elements are fixed and do not change, no matter how many catalog cards are produced. Since these fixed costs must be allocated against the catalog cards produced each week, an increase in the number of catalog cards produced means that each catalog card bears a smaller share of these fixed costs while a decrease in the number of catalog cards produced means that each catalog card bears a larger share of these fixed costs. This combination of fixed and variable costs is the reason that the cost per catalog card differs each week. The more cards produced in a week, the lower the cost per card.

The fixed cost elements are those allocated to the various machines and supplies used by OCLC while the variable costs relate to the operations involved in card production. Approximately forty percent of card costs are computer-related.

Fixed Costs	Variable Costs
Card punch	Keypunching
Print train	Proofing and corrections
Printer attendants	6 computer runs
Card stock	Sort for file-listing
Ribbons	407 listings
MARC tapes	Pull Selections
Slitter	Sort pulled selections
Overhead of .5¢ per catalog card	Slitting of cards
	Mailing
	Accounting
	Printing

In July, 1970 the average weekly production was 5,266 cards, and the cost per card was 7.05¢; in August, the average weekly production dropped to 3,695, and the cost per card rose to 9.05¢; in September, the weekly average increased to 5,492, and the cost per card dropped to 7.31¢; in October weekly production rose further to 8,890, and the cost went down to 6.29¢ per card. The maximum price that can be charged per card is 9.5¢.

Assuming that a Member library receives, on the average, five cards per title at an average cost of 7¢ per card, its cost for receiving catalog cards ready to file in its catalogs is 35¢ per title. To this cost Members must add the cost of preparing and mailing request cards and of filing the packs received from OCLC. Adding an arbitrary 6¢ per title to cover a Member's cost in typing and mailing request cards (40 request cards per hour at a clerical wage of $2.40 per hour) would increase the cost of OCLC produced cards by just over one cent per catalog card. The addition of this requesting cost would raise the actual cost to a Member for packs of cards sorted and ready to be filed to an average of 8¢ or a maximum of 10.5¢ per card, or from 40¢ to 53¢ for five cards.

The cost of OCLC cards is less than half that of merely preparing, producing, and sorting cards in several manual systems. When the cost of the various cataloging elements that use of OCLC eliminates is also taken into consideration, it can be seen that use of OCLC to the fullest possible extent will result in great reductions in a library's cataloging costs.

PART II. CATALOG CARD PRODUCTION: INPUT TO OFF-LINE SYSTEM

A. Development Phases

Procedures for requesting catalog cards from OCLC will move through three phases of development. In the first phase, which is now operational, Members request cards by LC card numbers alone. In phase two, which is due to become operational in Summer 1971, Members will be able to request cards either by LC card number or by author and title. In phase three, Members will be able to furnish OCLC with original cataloging from which OCLC will produce cards. OCLC will use this original cataloging to make catalog cards when other Members request cards for titles for which no MARC II record is available.

Phases two and three will operate on-line, which will be a more efficient and effective method than are other types of communication.

Since the off-line system now operational can only process requests for catalog cards that are made using LC card numbers, this part of the Manual deals only with that phase in the development of the shared cataloging system. OCLC produces cards weekly after each new weekly MARC tape has been merged into the master file of MARC records.

The purpose of this part of the Manual is three-fold. Section B, Catalog Profile Questionnaire: Defining the Pack, delineates the objectives of the Catalog Profile Questionnaire and describes how to complete it. Section C, Request Procedures, provides the Membership with various procedures to follow when asking OCLC for catalog cards. Section D, Description of Precoded Punch Cards, contains detailed instructions for completing each type of precoded punch card.

B. Catalog Profile Questionnaire: Defining the Pack

Purposes of the Catalog Profile Questionnaire

The Ohio College Library Center has developed a Catalog Production System capable of handling the individual needs of its Member libraries. Each Member library is likely to contain a number of holding libraries such as a general stack collection, Reference collection, and departmental libraries; and a number of receiving catalogs such as author-title public catalog, a subject public catalog, an official catalog, a general shelf list, departmental public catalogs and departmental shelf lists. To complicate matters, an individual receiving catalog may contain cards showing the contents, in whole or in part, of several holding libraries while each holding library is usually represented by cards in several receiving catalogs. For example, titles shelved in a general stack collection may be represented by cards in a divided public catalog, an official catalog, a shelf list, and a file of cards to be sent to NUC. A title in the Music Library could be represented by cards in the main divided public catalog, official catalog, Music public catalog, Music shelf list and NUC file. The Music public catalog could contain cards for all titles shelved in the Music Library plus main entry cards for all titles with class numbers from the Music schedule which are shelved in the Main Library and other departmental libraries. To cope with this complicated situation OCLC has devised a Catalog Profile Questionnaire (CPQ) designed to obtain from Member libraries information about catalog cards needed in each receiving catalog.

Since types of cards needed will vary from receiving catalog to receiving catalog, a separate CPQ must be completed for each receiving catalog, showing types of entries included for each holding library represented by cards in that receiving catalog. To decide how many CPQs should be completed, each Member library should prepare a chart showing all its holding libraries along the top and all its receiving catalogs along the side. For each holding library a check should be made against each receiving catalog which gets catalog cards showing that library's holdings in full or in part. A CPQ should then be filled out for each check mark on the chart. (See Figure 10). Even if several CPQs seem to be identical when filled out, they all should be sent in. From each profile a program is coded to attach to the main program to produce catalog cards with the options requested for that holding library in that receiving catalog.

Since catalog cards are prepared in packs for filing into specific receiving catalogs, there will be one pack for each row on the chart. That pack will contain cards for works in all of the holding libraries checked in that row.

Some libraries maintain special catalog files, not related to a specific holding library, for books having special characteristics, such as a provenance catalog for books bearing marks of previous ownership. The Catalog Production System possesses the capability of producing "extra cards" for such special files. Those members maintaining special catalogs should inquire of OCLC for procedures to employ in requesting an extra card or cards.

Holding Library / Receiving Catalog	Main	Music	Science	Reference	Documents
Main Author/Title	x	x	x	x	
Main Subj.catalog	x	x	x	x	
Main shelf list	x				
Insurance shelf list	x	x	x	x	x
Music A/T		x			
Music Subj/		x			
Music s.l.		x			
Score catalog		x			
Science A/T			x		
Science Subj			x		
Science sl.			x		
Ref.dict.cat.				x	
Ref. s.l.				x	
Doc.dict.cat.					x
Doc.s.l.					x
NUC	x	x	x	x	

Figure 10. Chart showing what Catalog Profile Questionnaires have to be completed for a hypothetical Member library

Figure 11

OHIO COLLEGE LIBRARY CENTER

Catalog Profile Questionnaire

I. To define the pack of a receiving catalog, the Member should complete the following table. Directions for completing the table are in the Instruction Manual, pp. 2-3. Leave blank rows for types of entry not to be included in this pack.

II. 1. What is the name of the holding library or collection for which this pack contains cards? Jones Music Library

2. What is the name of the receiving catalog into which this pack will go? Main subject catalog

3. If this receiving catalog is not in the holding library or collection, put in the following box the stamp to appear with the call number (see Instruction Manual).

M	U	S	I	C			

Type of Entry	Holdings Information		Tracings		Subject Headings Position		Indention of Headings at Top of Cards (first line only)				Capitalization of Headings at Top of Cards.	
	Yes	No	Yes	No	Top of Card	Bottom of Card	Left edge	First indention	Second indention	Third indention	Upper case	Upper and lower case
Main Entry to be Arranged by Call Number (Shelf List)					▨	▨	▨	▨	▨	▨	▨	▨
Main Entry					▨	▨	▨	▨	▨	▨	▨	▨
Topical Subject Entry		X		X	X				X		X	
Name as Subject Entry		X		X	X				X		X	
Geographic Subject Entry		X		X	X				X		X	
Personal and Corporate Added Entries					▨	▨						
Title Added Entry					▨	▨						
Author-Type Series Added Entry					▨	▨						
Title-Type Series Added Entry					▨	▨						

Institution: Hypothetical University

Only collections that possess at least one logical catalog of their own should be described in questionnaires, i.e., should be considered Holding libraries. By logical is meant either a physical catalog or a fictitious file set up to cope with the special needs of a particular category of books. Each logical catalog is the equivalent of one pack of OCLC produced catalog cards. For example, if a library wishes to apply Kapsner subject headings to its books on religion, it might be able to do so through the use of a logical 'Religious Headings File'. By this method the library would receive, in a separate pack, extra main entry cards to which it would manually add the Kapsner subject headings before filing the cards in its dictionary catalog. Thus, while cards for religious material would end up in the same physical receiving catalogs as cards for the rest of the collection, some of them would reach the library in a separate pack destined, temporarily, for this fictitious subject catalog which might not have any actual physical existence.

Another example relates to the Reference collection that most libraries have. A Reference collection recorded in a separate shelf list, even if it lacked a separate author-title or subject catalog, is considered a Holding library and should be reported on CPQs. On the other hand, a Reference collection listed only in general catalogs is not considered a Holding library and should not be reported on CPQs. When catalog cards are ordered for titles which are to be shelved in a collection of the latter type, the wording of the location stamp needed should be included in the appropriate box on the blue and yellow punch cards from which catalog cards will be produced. (See below) For collections of the former type, i.e., holding libraries, the locations should not be indicated on the blue and yellow punch cards since the computer is programmed, on the basis of the information given on the CPQs, to produce catalog cards that contain the appropriate location statements.

After receiving completed questionnaires from each Member, OCLC devises a unique, three-symbol code for each Holding library. Sets of colored punch cards are then pre-punched with these codes and sent to the Member libraries for use in requesting catalog cards. Care should be taken to use a pre-punched card for the correct Holding library when requesting catalog cards for titles to be shelved in that library.

Completing the Catalog Profile Questionnaire

There are two parts to the CPQ. The first part contains three questions, the first of which asks for the name of the

Holding library or "collection". (See definition on page 4) Examples of names that might be given to holding libraries are MAIN LIBRARY, CHEMISTRY LIBRARY, JONES LIBRARY, DOC. COLLECTION, REF. COLLECTION, etc.

The second question requests a Member library to designate the receiving catalog to which the questionnaire is referring. This could be designated by such terms as PUBLIC CATALOG, PUBLIC NAME-TITLE CATALOG, PUBLIC SUBJECT CATALOG, MAIN SHELF LIST, DOCUMENTS PUBLIC CATALOG, DOCUMENTS SHELF LIST, MUSIC SCORE PUBLIC CATALOG, NUC, etc. As noted above, each receiving catalog will require several questionnaires, one for each holding library represented in it.

The third question asks for the location stamp, if any, to appear with call numbers on cards in that receiving catalog for titles located in that Holding library. This location information should be typed or printed in the exact form desired on catalog cards, as regards capitalization, spacing, punctuation, e.g., REF. or Ref. or REF or Ref.
Coll., etc. with a maximum of eight characters per line.

The second part of the CPQ consists of a table which should be completed according to the characteristics desired for each of the nine types of entries that may be included in packs. The types of entries are found in the left side of Figure 11. Across the top of the table are five variable components associated with types of entries. They are from left to right on Figure 11: Holdings Information, Tracings, Subject Headings Position, Indention of Headings at Top of Cards, Capitalization of Headings at Top of Cards. These components should be defined for each type of entry which is to be in a particular pack.

Some libraries record holdings information on only shelf list cards or main entries, while other list holdings on all cards. Checks in the "Yes" and "No" columns under "Holdings Information" will yield the formula that each Member wishes to apply. If tracings are desired at the bottom of cards for a particular type of entry, check "Yes" against that type of entry. If no tracings are needed, mark "No". Subject headings can be positioned at either the top or the bottom of the cards. A check should go into one of the two positions desired.

The fourth component contains information concerning heading indention. The first line of a heading at the top of a card may begin at one of four places: left edge of the card, first indention, second indention, third indention. Mark the box indicating the preferred indention for each type of added entry in a pack. Second and third lines of a heading presently begin at third indention. Each Member will be asked where it wants each indention to begin.

Not all rows need to be filled out on any one questionnaire. If the receiving catalog being described on a particular CPQ is a shelf list, then only the first row should be filled out as entries of the other types will not be included in that catalog. If the catalog being described is a subject catalog, then only the boxes on the three rows relating to subject entries should be filled in.

The last component refers to capitalization used in headings at the top of cards; the Member can have a heading either in all upper case or in a combination of initial capital and lower-case letters.

C. Request Procedures

This section of the Manual contains directions for using punch cards to obtain catalog cards from MARC records. The Catalog Production System provides for four basic schemes differentiated by the types of call numbers used; namely use of LC cataloging data plus LC call number, use of LC data with alteration of LC call number, use of LC data and Dewey class number, and use of LC cataloging data with a local call number. Most libraries now employ two intermeshed procedures for cataloging. The primary procedure employs LC cataloging data, and the secondary procedure utilizes original cataloging when LC data is not available. The OCLC Catalog Production System integrates with present primary procedures.

When to Request

Libraries using LC cataloging data and LC call numbers should not request catalog cards for a book until it has been received. This is true whether or not the library has seen cataloging data for that book in the NUC catalog, proofslips, depository cards, or some other source. If catalog cards were requested earlier, cards for some books would be in the catalog before the book would be on the shelf. In some cases the books would never be received. Since cards are received in packs ready to be filed in particular catalogs the only way to remove cards for books not yet on the shelves would be a card-by-card examination of all cards in the relevant packs, a procedure that would negate the time-saving benefit of receiving cards in packs pre-sorted for filing.

Libraries that utilize LC cataloging data but not its call numbers (using instead LC class numbers, Dewey class numbers, or devising local call numbers) usually order a single unit card before requesting full sets of catalog cards for books. These unit cards may be requested either when the book is ordered or after it is received. As American books contain the LC card number it would be less expensive for the Member library if it waited until these books had been received before requesting unit cards. In this way it could save itself the search costs involved in locating card numbers. Unit cards for foreign imprints, however, could be requested when the book is ordered as they will not contain LC card numbers and will have to be searched at some stage in their processing.

In a library using LC cataloging data and LC call numbers procedures could be somewhat as follows. When an English language book is received, the cataloger would check the verso of the title page to see if the LC card number began with a "7" or "69". If it did, he would write that LC card number on the appropriate OCLC punch card (details below) and that card would be sent to OCLC to produce the desired catalog cards.

If the card number did not begin with a "7" or "69", the cataloger could search the book in files of LC cataloging data such as the NUC catalog, proofslip file, or depository card file. When he located an LC catalog record describing the book and bearing a card number accompanied by the designation "MARC", he would write the card number on the appropriate punch card to go to OCLC.

Libraries that do not use LC call numbers should follow the same criteria in deciding whether or not to order cards for a work from OCLC, i.e., it should be an English language monograph whose card number either begins with a "7" or "69" or is accompanied by the designation MARC.

Since the RECON Project will not be finished in the life-time of the OCLC off-line system (which is scheduled to end in Summer 1971), English language books not having an LC card number with an initial "7" or "69" or not having a catalog record with the MARC designation would be processed according to the library's present cataloging system. All foreign language books, no matter what the LC card number, would also be processed according to the library's present cataloging system.

Permanent Records at OCLC

Information received on punch cards from Members will be stored in the OCLC master file. A record will be kept by Holding library of each book cataloged, these records to include the additions or changes requested by a Member. Therefore, libraries need to report an addition or change to OCLC only once.

Four Requisition Procedures

As mentioned above, there are four basic call number systems, each having different request procedures. As each of these procedures is explained, certain options will be discussed. These options permit each Member to alter the cataloging and call number to satisfy its own requirements.

On unit cards, as depicted in Figure 8, LC call numbers or Dewey class numbers are placed in a 22-position area on the bottom line that is called the "user option area". This information is included only on cards in the unit card packs. A library may insert information in this space on cards in catalog packs. For example, an accession number could be placed in the user option area. This would be done with a brown card.

For each set of procedures there is a corresponding flowchart (Figures 12, 13, 14, 15). These flowcharts represent the various options available to a Member when requesting catalog cards in accordance with one of the four basic procedures.

Users of LC Call Number (Figure 12)

These Members request catalog cards by completing the blue punch card which requests production of complete packs. There are two options in making this type of request.

Case 1. If there are no modifications to be made to descriptive cataloging and no holdings to record as a note, then a Member library would send only a blue card to OCLC. Holdings information to be part of the call number should be written in the box in the lower, right-hand corner of the blue card (Figure 16).

Case 2. If a library does want to modify the LC data, or to record holdings as a note rather than with the call number, or to insert information into the user's option area, the librarian would use the brown card (Figure 21) with the blue card.

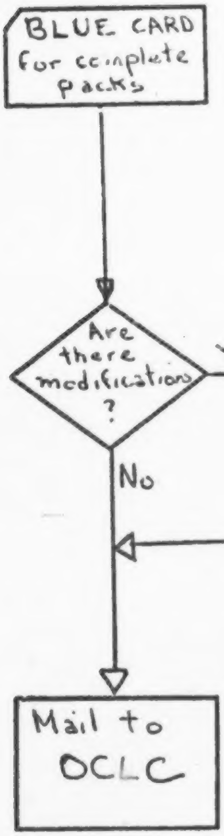

BLUE CARD for complete packs
Are there modifications ?
Yes
BROWN CARDS for modifications
No
Mail to OCLC

Figure 12. Flowchart for library using LC call number

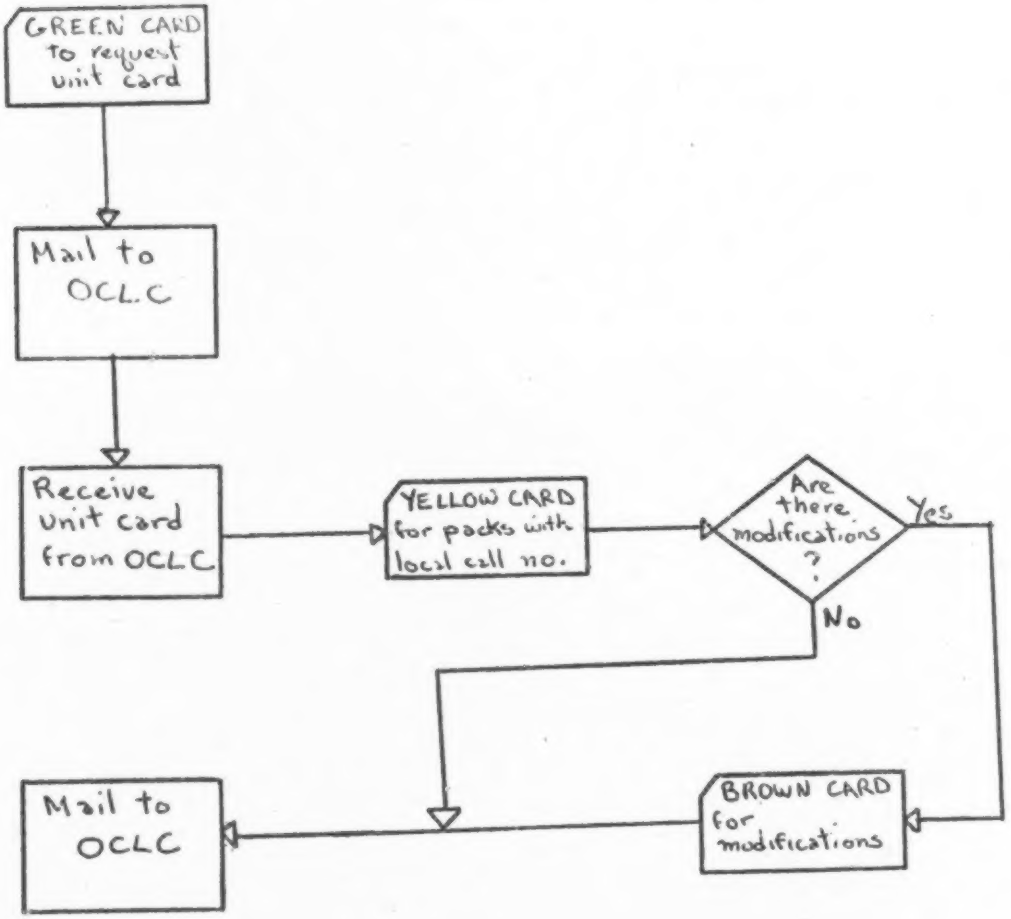

GREEN CARD to request unit card
Mail to OCLC
Receive unit card from OCLC
YELLOW CARD for packs with local call no.
Are there modifications ?
Yes
No
BROWN CARD for modifications
Mail to OCLC

Figure 13. Flowchart for library using LC class number

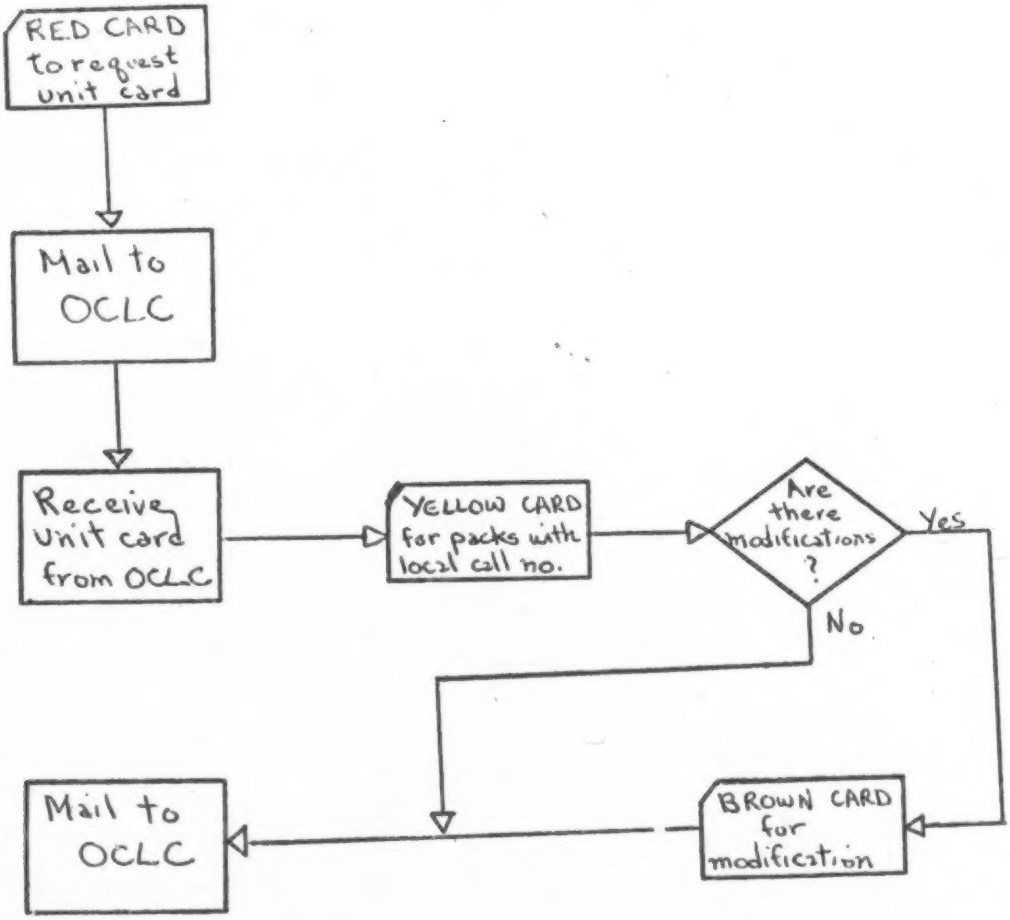

RED CARD to request unit card
Mail to OCLC
Receive unit card from OCLC
YELLOW CARD for packs with local call no.
Are there modifications ?
Yes
No
BROWN CARD for modification
Mail to OCLC

Figure 14. Flowchart for library using Dewey class number

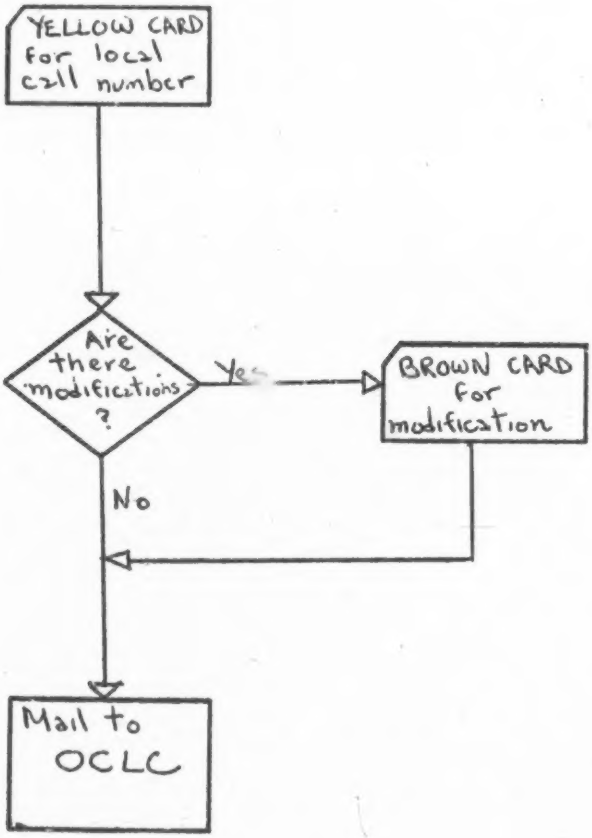

YELLOW CARD for local call number
Are there modifications ?
Yes
BROWN CARD for modification
No
Mail to OCLC

Figure 15. Flowchart for library using a local call number

Users of LC call numbers that employ the alternate class number supplied by LC for literature should use the green card labeled LITERATURE to obtain a single unit card showing that alternate class number (Figure 19). After a book number has been added to the class number, a full set of cards can be ordered by using a yellow card.

Users of LC Class Number (Figure 13)

Member libraries using LC class numbers but not book numbers will ask for catalog cards by completing a green punch card (Figure 18) and forwarding it to OCLC. The green card requests OCLC to send a unit card (Figure 8) to the Member. Any non-Dewey library wishing a unit card for any purpose should use a green card. The green card labeled "LITERATURE" should be used to obtain unit cards with the LC alternate class number for literature. (Figure 19) After a call number has been constructed for the book, the library may order complete sets of catalog cards by filling out a yellow punch card with the desired call number, i.e., LC class number plus local book number. A Member library requesting complete sets with the yellow cards has two alternatives.

Case 1. If there are no modifications and no holdings as notes, the library will send only a yellow card to OCLC. (Figure 20).

Case 2. If a library wishes to modify the LC descriptive cataloging, to record holdings as a note, or to insert information into the user option area, the librarian will send a brown card (Figure 21) with the yellow card.

Dewey Users (Figure 14)

Members of OCLC using a Dewey class number follow the same request procedures as do libraries employing an LC class number, with one exception. Dewey users request a unit card by sending a completed red punch card (Figure 17) to OCLC. If a MARC record lacks a Dewey class number, Dewey users can have the option of getting a unit card with the LC call number in the user area, even though the request was submitted on a red card.

To obtain complete packs a Member will fill out a yellow punch card and exercise one of the following options.

Case 1. When there are no modifications and no holdings note to be reported, the library will send only a yellow card (Figure 20).

Case 2. When a Member wishes to make modifications to add a holding note, or information in the user option area, the librarian completes a brown punch card (Figure 21) and sends it to OCLC with the yellow card (Figure 20).

Users of Local Call Numbers (Figure 15)

A local call number, as the term is used in this Manual, can be one of several things. It can be a complete call number made available by some source other than the Library of Congress such as a Superintendent of Documents number or an NLM number. It may be a number completely devised locally. It may be a combination of an LC or Dewey class number with a locally created book number. Local call numbers can be used for entire collections or for special collections such as a documents collection or a medical school library.

Members who utilize local call numbers either for a special collection or for the entire collection may request catalog cards by writing the call number on a yellow card. If they use LC class numbers or LC-assigned Dewey class numbers, they do this after having previously ordered unit cards with green or red punch cards. If they use call numbers completely devised locally or available from some source other than LC they have two choices. They may first order a unit card by using a green punch card so that they may verify the fact that the cataloging data supplied by LC fits the book they have in hand before using a yellow punch card to request a complete set of cards. If they know from examination of the NUC catalog or some other source that the cataloging data fits, they may by-pass the unit card stage and send in a yellow card without the intermediate step of using a green card. When a library uses yellow cards to obtain catalog cards, one of two alternatives may be exercised.

Case 1. A yellow card will be used to obtain cards bearing a local call number. (Figure 20)

Case 2. If a modification, holdings note, or placement of data in the user option area is desired, the librarian should send a brown card (Figure 21) with the yellow card.

Modifications and Holdings Notes

The brown card does not request catalog cards from OCLC. This card only requests OCLC to alter the machine readable record which is used for card production achieved by a blue or yellow card. Because instances may occur in which a library wishes to record modifications or to add holdings to the machine readable record without cards being produced, a Member may send a brown card to OCLC without a card requesting card production.

D. Description of Precoded Punch Cards

This section of the Manual explains the function of six precoded punch cards used in the Catalog Production System. Each punch card has a unique function, and, except for the green "LITERATURE" card, each is a different color. A detailed explanation of the proper method to use in completing each punch card is also given. Figures 16 through 21 contain reproductions of the punch cards. Although the brown card has not yet been activated, a somewhat general and tentative explanation of its functions is given. When it has been fully defined and become an operational part of the System, a more detailed and exact description will be sent to all Member libraries.

One item of information that is requested on all punch cards, no matter what their color, is the LC card number. In the off-line system, the LC card number is the sole method of access to a particular record in the data base and must be given to identify the bibliographical record wanted.

MARC records corresponding to card numbers on blue, red, green and yellow cards will be sought in the MARC data. Members can elect to have their requests searched against the master file for periods varying from one to thirty-six weeks. If, at the end of the chosen cycle-time, a MARC record has not been located in the data base, the original punched request cards are returned to the Member library which may, if it desires, send a new request card for that work to OCLC to start the cycle again. If a member wishes to recall some punched cards which have not yet hit a MARC record before the end of a cycle, it may do so by either letter or phone call. Once a MARC record has been hit OCLC retains the blue and yellow request cards as a record of the holdings of the Member library. This information will be transferred to disc when the system goes on-line.

An item of information asked for in a box in the top, right-hand corner of the blue, red, and green cards and at the bottom left of yellow cards is called "Temporary shelf placement" (earlier versions of these cards say "Main Entry"). This is for the use of the Member library only, to enable it to locate readily a book for which the original punch card was returned because there was no MARC record for it in the data base. If a Member arranges books awaiting processing by main entry, then the first significant work of the main entry should be placed in this box. If books are arranged by date of receipt, then that date should be put in the box. In summary, a Member library should put in that box whatever information will most easily allow it to locate a book if the punch card is returned to the library.

Mailing Procedures

After an institution has sent in its Catalog Profile Questionnaires, OCLC assigns it a number of three-character symbols, one for each of its Holding libraries. OCLC then sends that Member library packs of colored punch cards to be used in requesting catalog cards for works in each holding library. The number of punch cards sent is determined by the size of the library and an estimate of the number of books they catalog weekly. OCLC programs keep track of the number of cards of each color sent for each holding library, the number they have sent in as requests, and the average number they send in weekly so as to know when to send more cards for that holding library. New supplies of colored punch cards should therefore be received before the previous supply is exhausted. If, however, a holding library has not received new punch cards and its stock is running low, it can request more punch cards from OCLC.

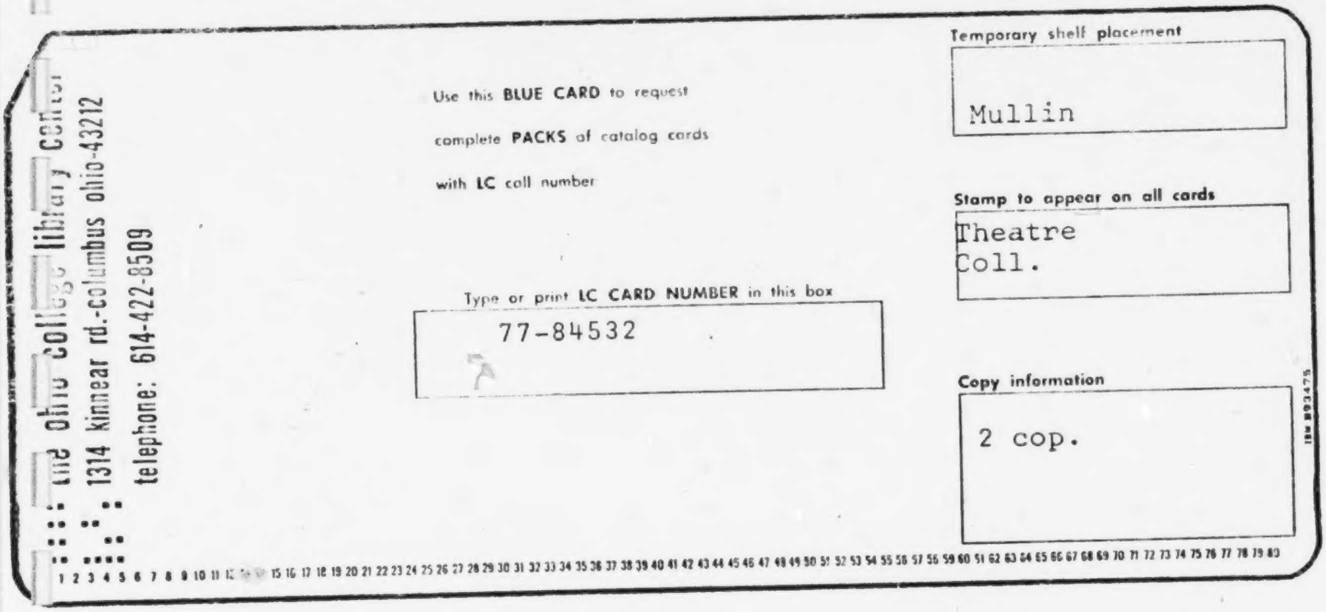
Packs of completed catalog cards are mailed out weekly, usually on Mondays. If colored punch cards are received from the Members no later than Monday finished cards for titles for which cataloging data is already available on MARC tapes are sent out a week after the request has been received.

Packs of catalog cards and of colored punch cards are mailed 4th class by OCLC. Postage costs are among the elements included in calculating the cost of catalog cards. Member libraries sending colored punch request cards may use either 1st or 4th class mail.

Members do not need to sort the punch cards they send in as sorting is done by a computer at OCLC more rapidly and accurately than it could be done manually by individual libraries. It would be helpful, however, if cards of different colors were not intermixed.

Blue Punch Card (Figure 16)

A blue card is used to request complete packs of catalog cards with LC call numbers. To complete this punch card, the LC card number should be typed or printed in the box in the middle of the blue card.



the ohio college library center
1314 kinnear rd.-columbus ohio-43212
telephone: 614-422-8509

Use this **BLUE CARD** to request
complete **PACKS** of catalog cards
with **LC** call number

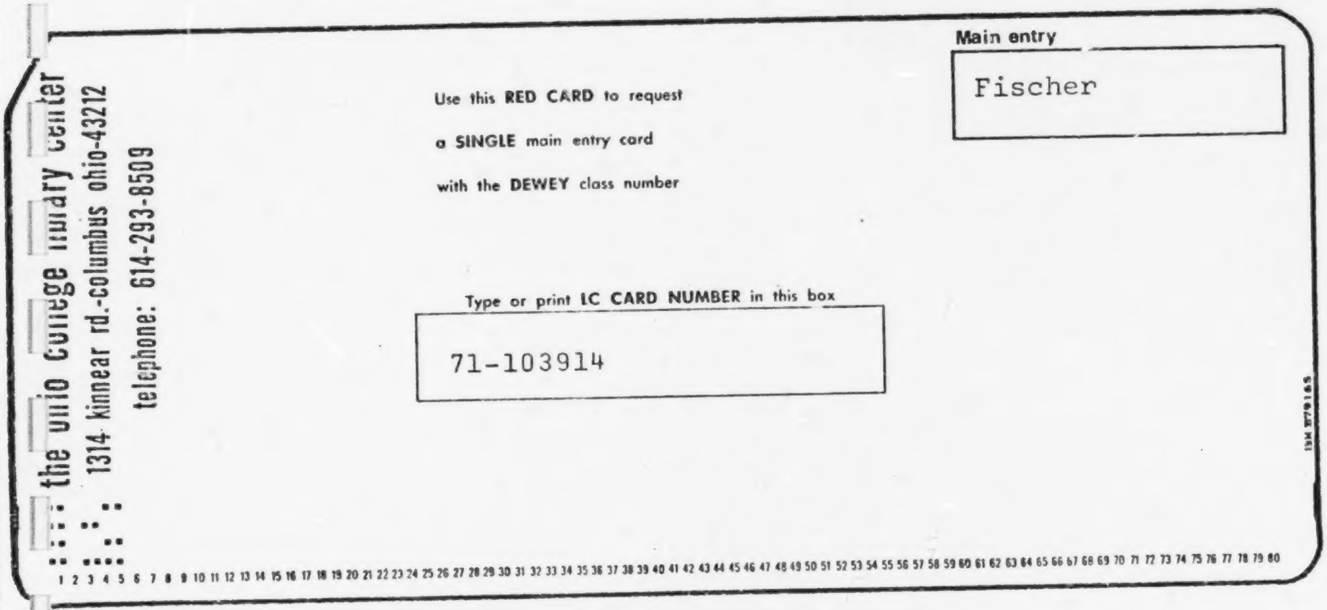
Type or print **LC CARD NUMBER** in this box
77-84532

Temporary shelf placement
Mullin

Stamp to appear on all cards
Theatre
Coll.

Copy information
2 cop.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80



the ohio college library center
1314 kinnear rd.-columbus ohio-43212
telephone: 614-293-8509

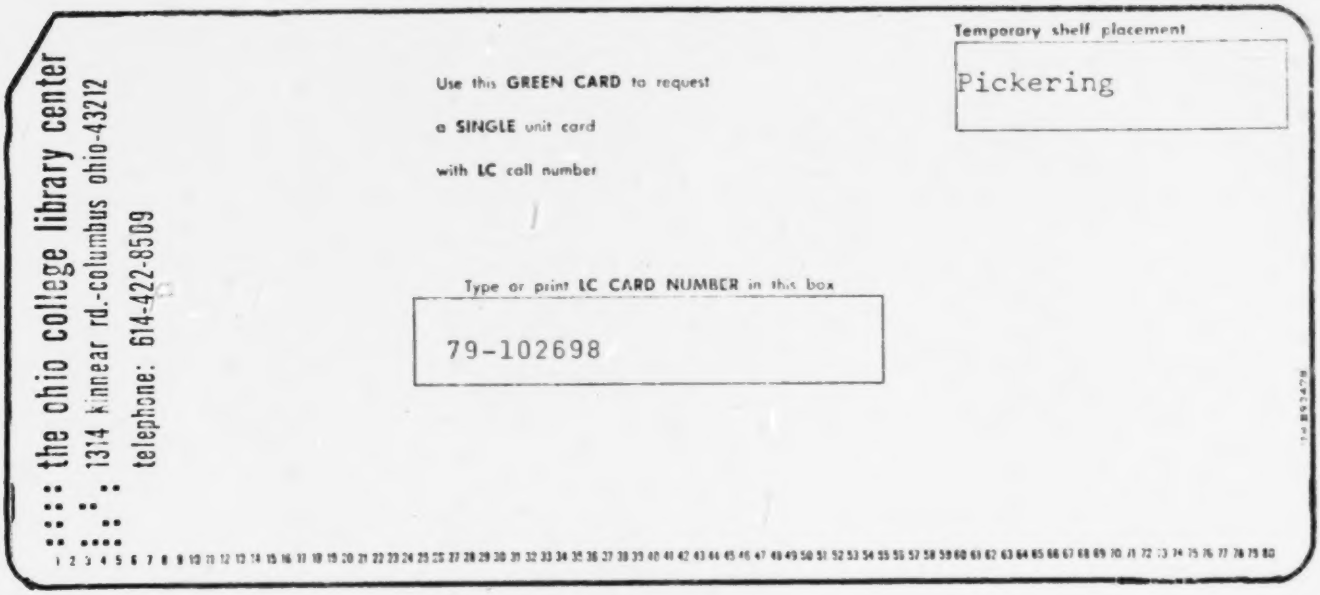
Use this **RED CARD** to request
a **SINGLE** main entry card
with the **DEWEY** class number

Type or print **LC CARD NUMBER** in this box
71-103914

Main entry
Fischer

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

Figure 16 and 17. Blue card and red card

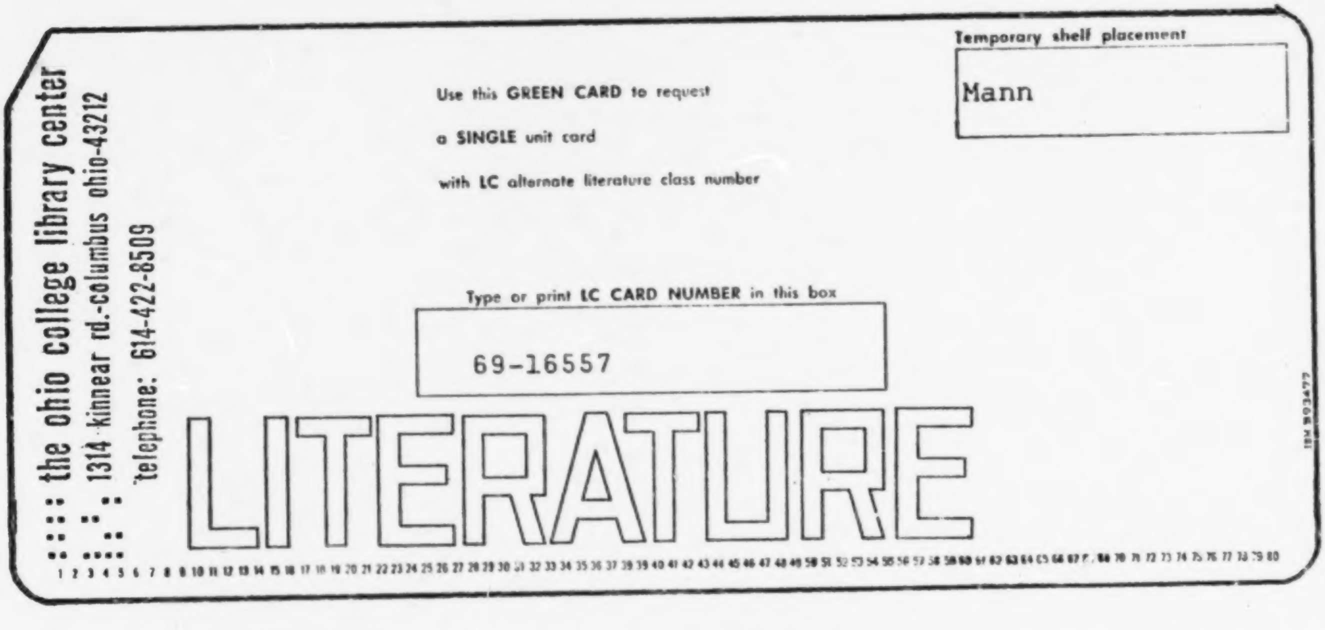


the ohio college library center
1314 kinnear rd.-columbus ohio-43212
telephone: 614-422-8509

Temporary shelf placement: Pickering

Use this **GREEN CARD** to request
a **SINGLE** unit card
with **LC** call number

Type or print **LC CARD NUMBER** in this box: 79-102698



the ohio college library center
1314 kinnear rd.-columbus ohio-43212
telephone: 614-422-8509

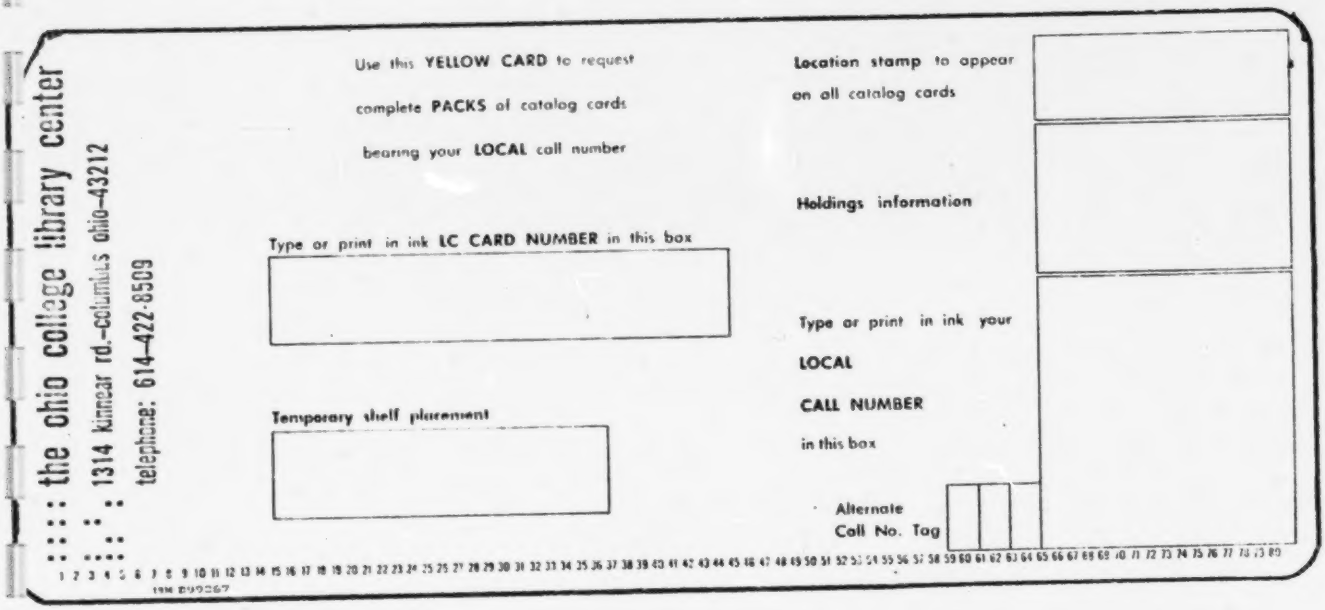
Temporary shelf placement: Mann

Use this **GREEN CARD** to request
a **SINGLE** unit card
with **LC** alternate literature class number

Type or print **LC CARD NUMBER** in this box: 69-16557

LITERATURE

Figures 18 and 19. Green card and green literature card



the ohio college library center
1314 kinnear rd.-columbus ohio-43212
telephone: 614-422-8509

Use this **YELLOW CARD** to request complete **PACKS** of catalog cards bearing your **LOCAL** call number

Type or print in ink **LC CARD NUMBER** in this box

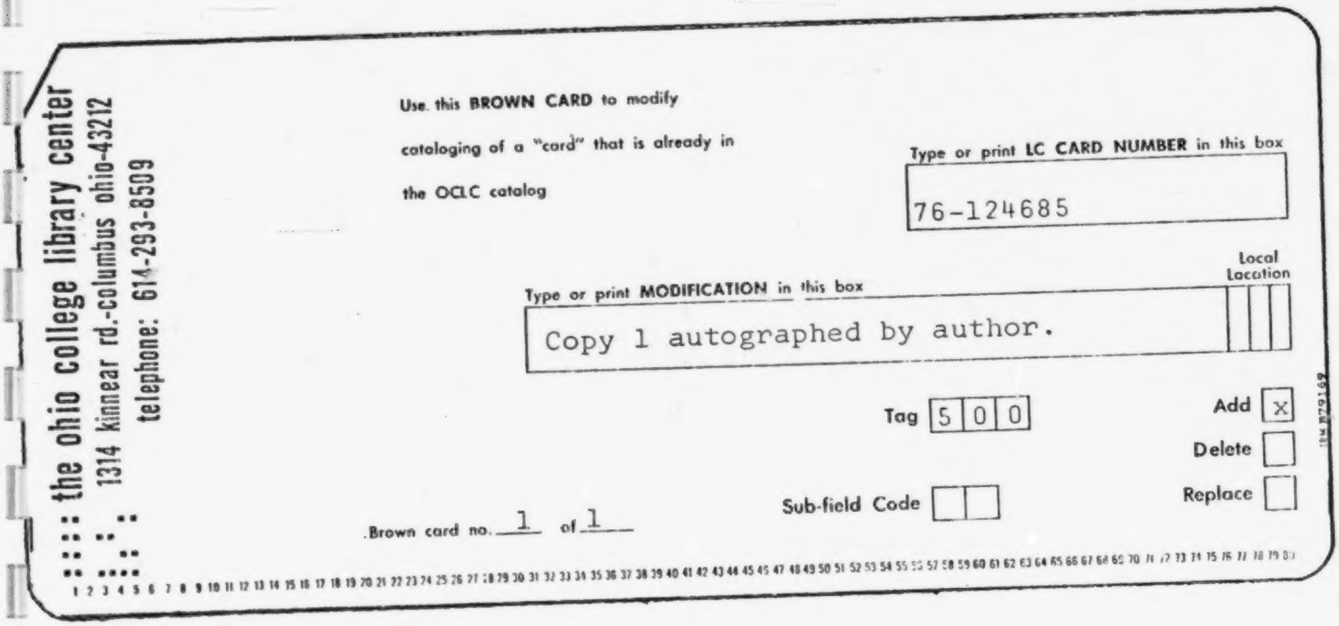
Temporary shelf placement

Location stamp to appear on all catalog cards

Holdings information

Type or print in ink your **LOCAL CALL NUMBER** in this box

Alternate Call No. Tag



the ohio college library center
1314 kinnear rd.-columbus ohio-43212
telephone: 614-293-8509

Use this **BROWN CARD** to modify cataloging of a "card" that is already in the OCLC catalog

Type or print **LC CARD NUMBER** in this box: 76-124685

Type or print **MODIFICATION** in this box: Copy 1 autographed by author.

Local Location

Tag 5 0 0

Sub-field Code

Add ☒
Delete ☐
Replace ☐

Brown card no. 1 of 1

Figure 20 and Figure 21. Yellow card and brown card

To list multiple copies of a book or individual volumes of a multi-volumed work on a catalog card with the call number, place the desired information in the box at the lower right-hand corner of the blue card. Such information could be in forms such as "2 cop.", "Vol. 3, 2 copies","V. 3 only"; or it could be given by a listing of the accession numbers of the volumes involved. If a "stamp" is required with the call number, to show location of a work in a special collection in the Holdings library, put the stamp in the middle box at the right-hand end of the card. Each line of the holdings and location statements is limited to a maximum of eight characters including blanks.

Green Punch Cards (Figure 18-19)

A green card should be used by Members not using Dewey to request a unit card; this unit card carries the LC call number in the bottom line (Figure 8). Members should use a green card labeled "LITERATURE" (Figure 19) to obtain a unit card bearing an LC alternate literature class number in the user option area. By recording the LC card number in the box found in the middle of the green card, as shown in Figures 18 and 19, and forwarding the card to OCLC, the Member will receive a unit card with an LC call number or class number.

Red Punch Card (Figure 17)

A red card is also used to request a unit card. However, a red card requests a unit card bearing a Dewey class number. By placing a LC card number in the box in the middle of the red card, as in Figure 17, a Member will receive the desired unit card.

Yellow Punch Card (Figure 20)

A yellow punch card is used by Members to request complete sets of catalog cards bearing their local call number. This local call number can consist of both a locally devised class number and a locally devised book number, of an LC or Dewey class number with a locally devised book number, or some other standard call number such as Superintendent of Documents or NLM call number. If a holdings statement is to be part of the call number, the Member should put the information desired in the box designated Holdings information. This information should be put in the box in the exact order in which it is to appear on the catalog cards.

The LC card number should be placed in the box to the left center of the yellow card and the local call number, exactly as it is to appear on catalog cards, should be placed in the larger box in the lower right corner of the card.

Care should be taken to insure that each character is clearly and distinctly written so that there is no doubt which letter is meant, e.g., "U" or "V" or "l" or "1". For this reason typed call numbers are preferable to hand-printed ones. If call numbers are printed by hand, ink should be used, not pencil.

Since each call number line will accomodate up to eight characters, no more than eight characters, including decimal points and blank spaces, should be arranged on one line.

The small box labeled 'Alternate call number tag' which is located at the lower left end of the local call number box is to be ignored. It is designed to contain the MARC II variable field tag for local call number, '090', which is automatically supplied by OCLC programs.

Brown Punch Card (Figure 21)

A Member library requests modifications to LC descriptive cataloging, addition of holding information as Notes, or insertion of information into the user option area on the bottom line of a catalog card by using a brown punch card. In the upper-right corner of the card is a box within which the LC card number should be typed or printed, as in Figure 21. Immediately below the LC card number there is a longer box for the modification.

The change to the descriptive cataloging should be typed or printed in this box exactly (as regards capitalization, punctuation, spacing, abbreviations, etc.) as it is to appear on the catalog cards. Only one line of the text to be on a catalog card should be placed in the modification box of any brown card. If the modification requires more than one line to complete, then two, three, or more additional brown cards should be used. The number of characters to be included in a line depends on the indention positions chosen by a Member library and at which indention a particular line starts.

If there are a number of different modifications for one book, then each modification should be reported on a separate brown card or cards.

Directly beneath the modification box are boxes labeled "Tag" and "Subfield Code". The tag is a three-digit number used to designate the field to be modified. (See Books: A MARC Format. 4th Edition, pp. 42-70). This tag number can be selected from Figure 9. The sub-field code is a two-character symbol designating a single data element within a field. The first character is a delimiter which separates the sub-fields, this is represented by the graphic symbol "$". The second character is an alphabetic one and its exact meaning varies from field to field. (See Books: A MARC Format, 4th Edition, pp. 43-70 for an enumeration of the sub-field codes for each field).

Some fields contain only one data element and thus contain only one sub-field code. This is represented as "$a". An example is Field 500 (General Notes). Field 260 (Imprint), on the other hand, contains 3 subfields, $a for the place of publication, $b for the publishers, and $c for the dates of publication. It is possible for the same sub-field to be used more than once in a particular field. Thus, if a book contains both a printing date and a copyright date, each one will be designated by subfield code "$c" in Field 260.

The library requesting a modification can specify the field to be modified from Figure 9. Unless the Member has a copy of Books: A MARC Format it will be unable to designate the subfield code so this box should be left blank.

In the lower-right corner of the brown card are three separate boxes, labeled "Add", "Delete", and "Replace". Normally, only one of the three boxes would be checked.

The three small boxes marked Local Location have not yet been defined.

Finally, there is a short phrase found in the lower-middle section of the brown card that reads:

"Brown card no. ________________ of ____________________".

A Member library will complete this statement according to the number of brown cards used and in the order these cards are to be processed. For example, if four brown cards were necessary to modify the cataloging, the phrases on the punch cards would be completed as follows:

"Brown card no. 1 of 4" --- first card

"Brown card no. 2 of 4" --- second card

"Brown card no. 3 of 4" --- third card

"Brown card no. 4 of 4" --- fourth card

The four brown cards would then be processed by OCLC in the numerical order designated by the Member.

PLEASE RETURN

III

CREATION OF MACHINE READABLE CATALOG ENTRIES; AN ADAPTATION OF THE "DATA PREPARATION MANUAL: MARC EDITORS".

Ohio College Library Center

May, 1971

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PREFACE

This manual is designed to aid catalogers in preparing catalog entries in machine readable form for the on-line cataloging system of the Ohio College Library Center. The manual is constrained to tagging and coding; it does not instruct in the use of a cathode ray tube terminal. Another manual that will appear in June, 1971 will describe operation of a terminal and input of data other than that of a bibliographic nature.

The Ohio College Library Center is grateful to the American Library Association and the Library of Congress for allowing use of Data Preparation Manual: MARC Editors (MARC Manual Vol. 2) that is the basis of this manual. Much of the text in the MARC Manual remains unchanged. The Center is also grateful to the American Library Association for granting permission to reprint Appendix I from volume 2, number 2 of the Journal of Library Automation.

2 May, 1971

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INTRODUCTION

One of the basic functions of librarians over the years has been the recording and organizing of bibliographic data to facilitate access to and use of the books and other materials contained in the collections of libraries. Although bibliographic data may be recorded and stored in a variety of ways, the card catalog record (3x5 card) has been the preponderant medium used by libraries in the United States. The advent of the computer provides a new medium and technique for recording, storing, and processing bibliographic data. The information on card is the result of a complex data collection process in which many people with specialized knowledge record various kinds of data often on a manuscript card. The purpose of this manual is to specify the additional steps required in the data collection process to prepare bibliographic data for conversion into machine-readable form.

Although detailed knowledge of the data processing world is not necessary for those engaged in the data collection process, an understanding of certain basic distinctions between the typed or printed catalog record and such a record in machine-readable form will aid in the accurate preparation of cataloging data for conversion into machine readable form. Information may be expressed implicitly or explicitly. Perhaps the basic difference between a typed or printed catalog record and one in machine-readable form is that much of the information on the former is expressed implicitly, while in the latter it is expressed explicitly. A human being can look at a printed catalog card and recognize the names of its component parts (data elements) such as: place of publication, date, pagination, etc., as well as where each of these elements begins and ends. A machine cannot make such judgments; therefore, a means must be provided by which it can discriminate between data elements and determine precisely where each element begins and ends. Once this determination has been achieved, the bibliographic data can be stored on a medium such as magnetic tape and the computer can be programmed to manipulate the data elements in a variety of ways, some traditional (3x5 catalog card format), some new. The problem can be illustrated by imagining data in machine-readable form as a continuous string of characters as long as is needed to express the data. Main entry, title, and imprint are traditionally formatted as follows in a catalog record:

Grace, William Joseph, 1910-
  Response to literature [by] William J. Grace.
New York, McGraw-Hill [1965]

In machine-readable form they would be strung out as:

Grace, William Joseph 1910- Response to
literature [by] William J. Grace. New York,
McGraw-Hill [1965]

If this data were used in a computer, it would be impossible to write instructions that would allow the machine to identify author and title or, for that matter, place, publisher, and date. The blank character between author and title is no different from the other blanks between words. Thus, just as the typed or printed catalog record has a format in which data elements are arranged in a precise and consistent way from record to record, so does the machine-readable catalog record have a format in which the data elements are arranged precisely and labelled consistently. The major task of those involved in the preparation of data for conversion to machine-readable form (descriptive and subject catalogers, shelflisters, etc.) essentially will be to translate what they already know implicitly into an explicit form in accordance with the rules and specifications set down by the designers of the machine-readable format. This manual describes those rules.

In addition to traditional library terminology, other terms have been used throughout the rules. These terms and their definitions follow:

Data Element

A data element is a unit of information, e.g., pagination.

Field

A field contains data elements. Each field is assigned a name which represents the contents of that field, e.g., collation, imprint, etc. There are two kinds of fields: fixed and variable.

> A fixed field contains a data element which is always expressed by the same number of characters. For example, a date is always expressed as four numeric characters: 1968. Languages are always expressed with a three-character alphabetic code: ENG = English

> A variable field contains a data element, the length of which cannot be predetermined (main entry, title, etc.). A variable field may contain more than one data element. In general, a data element will be variable in length in the same way as the field which includes it. For example, the collation is a variable field made up of three data elements: pagination, illustration(s), and size. Another variable field is imprint, made up of the data elements place, publisher, date of publication.

Record

A record is a collection of fields treated as a unit. The information on a catalog card constitutes one example of a record.

Tag

A tag is a label which identifies a variable field.

Example: 100 ǂ main entry, personal name.

A tag always consists of three characters and for computer processing is always expressed as three numeric characters.

Indicator

An indicator is a one-character code which supplies additional information about a field. For purposes of input, an indicator generally will be inserted adjacent to the last character of the tag. The exceptions to this rule are specified at the appropriate places in the rules that follow.

Example: 1001 = main entry, personal name--single surname

Numeric tag Numeric indicator

The indicator in the example above (surname) could be used for arranging names according to library filing rules (single surnames precede multiple surnames). The kind of information expressed by an indicator can be quite different from field to field. In contrast to the above example, which expresses filing information associated with a personal name, the indicator for the title field in the following example indicates that the title will be used as an added entry.

Example: 2451 = title--added entry

Numeric tag Numeric indicator

The MARC II format for monographs allows the use of two indicators for each variable field. Depending upon the field, zero, one, or two indicators are used.

Fields with which indicators are used are listed on pages 63-69 along with the kind of information contained in their respective indicators. An indicator is always expressed as a numeric character.

Delimiter

A delimiter is a special symbol used for machine manipulation to separate data elements within a field. The special symbol used as a delimiter is: ǂ

Example: Collation: 24 p. ǂ illus. ǂ 23 cm.

The delimiter in the above example is used to separate the data elements making up the collation, namely, pagination, illustrations, size.

Subfield codes

Subfield codes are lower case alphabetic characters used in conjunction with delimiters to identify data elements within a field. Taking an imprint as an example, its complete identification for the computer is as follows:

260 ǂa New York, ǂb Macmillan, ǂc 1968.

The tag 260 identifies the field "imprint." The delimiter and subfield code "a" identify and set off the place of publication. ǂb identifies and sets off the publisher. ǂc identifies and sets off the date of publication. Knowledge that is implicit to a human being looking at an imprint has been made explicit to a computer, that must discriminate between data elements that simply appear as a string of characters. Each field will have as many subfield codes as the number of data elements defined within the field. In the case of imprint, as we have just seen, the subfield codes are:

a - place
b - publisher
c - date

In the MARC II format for monographs the first data element in almost every field is identified by an "a." Since this condition will almost always obtain, it has been written into the computer programs, making it unnecessary for this code to be explicitly expressed on input whenever the first data element in the field is identified by subfield code "a." Thus the imprint can be tagged and delimited as follows:

260 New York, ǂb Macmillan, ǂc 1968.

The "a" code used to identify place of publication will be generated by the computer program and therefore must not be explicitly input.

CALL NUMBER (090)

This field contains the call number assigned to a book for which a catalog entry is being made for the first time into the OCLC system.

A. IDENTIFICATION.

1. Tag. The tag for the local call number is 090. It should appear in front of the call number.

2. Indicators. No indicators are used in either indicator position with the tag for this field.

3. Subfield codes and delimiters. Two data elements have been defined that require explicit indentification by means of a delimiter followed by a subfield code.

a. Data elements in call numbers are identified by subfield codes as follows:

Subfield code		Data element
a.	(never explicitly input when occurring as the first data element in the field)	Class number portion
b.		Book number portion

Examples:

Tag	Call Number
090	JK609 ǂb .M2
090	RT81.U6 ǂb N29
090	810.8 ǂb E346
090	266.0230924 ǂb B597

In a Library-of-Congress type call number, a delimiter and subfield code may be inserted between two Cutter numbers but never in the middle of such a number. Thus, when a Cutter number representing a further breakdown of a subject is expanded to indicate authorship, the call number is equivalent to the classification number. A delimiter and subfield code "b" are not required.

090	BX 6480.B54R8
090	HD4966.S4468

If this type of call number is followed by an edition date or volume number, insert a delimiter and subfield code "b" after the classification number.

090	BX 6480.B54R8 ǂb 1968
090	HC 517.S72C34 ǂb 1968

When Cutter numbers signify form, do not regard them as part of the classification.

090	H57 ǂb A3C2 where A3 signifies documents.

Some dates follow the class number and precede the author number in the classification schedules to achieve a chronological rather than alphabetical order. Regard such dates as part of the classification; the delimiter and subfield code "b" follows such a date.

090	DK274.3 1968 ǂb K3

MAIN ENTRIES

A. INTRODUCTION.

Names or uniform titles may be used in a catalog record as author headings in main entries, subject entries, added entries, or series added entries. Author headings are names capable of authorship and include personal names, corporate names, and uniform titles. All other headings are non-author headings and include topical subjects and geographic names that are not political jurisdictions. In general, the steps necessary for preparing author headings for conversion to machine-readable form remain the same--except for the tags--regardless of the function of the heading, i.e., whether main entry, added entry, etc. Therefore, the procedures described in this section, although illustrated with examples using main entry tags, are applicable, with appropriate substitution of tags, to author headings used as subject entries, added entries, or series added entries. Instructions unique to any of these fields will be given with the instructions for the field.

Each type of entry is identified by the first character of the numeric entry tag as follows:

Main entries

Numeric tag	Type of Entry
1 _ _	Main entry (author heading; (the absence of a main entry tag indicates entry under title.)
4 _ _	Series statement traced the same
6 _ _	Subject entry
7 _ _	Added entry
8 _ _	Series added entry traced differently from form in series statement

Author headings are divided into three categories. These categories remain the same regardless of the function of the heading, i.e., whether main entry, subject entry, added entry, or series added entry. The second character of the numeric entry tag defines the category according to the following code:

Numeric tag	
_ 0 _	Personal name
_ 1 _	Corporate name
_ 3 _	Uniform title heading

One subtype of corporate names, names of meetings or conferences, is defined by the use of a "1" in the third character of the numeric entry tag; otherwise the third character of numeric entry tags is a zero.

Numeric tag	
_ 1 0	Corporate name
_ 1 1	Meeting or conference name

Rules 79, 88B, 119A, 131-135, and 137 of the ALA Rules and Rules 87-92A of the AA Rules determine the definition of a meeting or conference heading. The judgment as to whether a heading is a meeting or conference heading is made solely on the basis of the heading itself, regardless of the nature of the material with which the heading is used. In case of doubt, treat the heading as a meeting or conference heading.

A uniform title heading is a title used as a bibliographic entry, i.e., main entry, subject entry, or added entry. It must be distinguished from those uniform titles, often called "conventional" or "filing" titles, which can be interposed in square brackets between the main entry and the transcription of the title page. Works entered under title (such as periodicals, encyclopedias, etc.), which have no main entry other than the title, are tagged 245. If these titles are used on other records as added entries or subject entries, they are tagged as uniform title headings.

Numeric tag	
130	Chanson de Roland
130	International review (Zürich)

B. PERSONAL NAMES.

1. Indicators. Indicators in the first position are used with personal names to describe the form of name to facilitate certain filing arrangements and in the second position to specify whether or not the main entry is also a subject. Personal names are divided into four categories.

These categories remain the same regardless of the function of the heading. A one-character indicator, placed immediately adjacent to the third character of the tag, identifies the category according to the following code:

Numeric indicator	Category
0	Forename
1	Single surname
2	Multiple surname
3	Name of family

Examples:

Numeric tag and indicator	
1000	John the Baptist (forename)
1001	Walpole, William Winchester (single surname)
1002	Johnson Smith, Geoffrey (multiple surname)
1003	Medici, House of (family name)

Although the distinction between forenames, single surnames, and multiple surnames is usually clear, some names (or phrases used as names) present ambiguities. The following guidelines should be used when assigning indicators for personal names. In the examples, only tags and indicators have been expressed.

a. Treat names having the structure of a forename (direct order) as forenames:

Numeric tag and indicator	Name
1000	Hildegrade
	Stendhal
	John, *pseud.*
	Homerus
	John the Baptist
	Moses Ben Jacob, *of Coucy*
	John of Salisbury, *Bp. of Chartres*
	Brother Bones
	Master of the Amsterdam Cabinet
	Pseudo-Brutus
	Ram Gopal
	Tran-van-Trai

b. Treat names having the structure of a surname (inverted order) as surnames:

Numeric tag and indicator	Name
1001	Chiang, Kai-shek
	Queen, Ellery, *pseud.*
	Other, A N

Numeric tag and indicator	Name
1001	Callisthenes, Pseudo-
	Fénelon, François de Salignac de la Mothe-
	Sand, George, *pseud. of* Mme. Dudevant, 1804-1876
	Corneille, Cornelis van Beverloo, *known as*, 1922-
	Theotocopuli, Dominico, *called* El Greco, *d.* 1614
	Uccello, Paolo di Dono, *known as*, 1396 or 7-1475
	Aungerville, Richard, *known as* Richard de Bury, *Bp. of Durham*, 1287-1345

c. Treat names known to be surnames but lacking forenames, as surnames:

Numeric tag and indicator	Name
1001	Clerckx.
	Smith.
	Smith,
	Smith, *Mrs.*

In case of doubt that a name is a surname, treat it as a forename:

1000	Howard.
	Zelda.

d. Treat surnames consisting of two or more words, with or without a hyphen, as multiple surnames. This includes names beginning with Old, New, East, North, Saint, Sainte, San, Santa, etc., all of which are words, not prefixes.

Numeric tag and indicator	Name
1002	Ben-Ami, Aharon
	Machado de Assis, Joaquim Maria
	Day-Lewis, Cecil
	Castel Branco, Camilo
	Saint-Gaudens, Augustus
	Santa Cruz, Alonso de
	Ben-Avram, Rachmael

e. Surnames consisting of multiple entry elements that include prefixes are not to be regarded as multiple surnames.

Numeric tag and indicator	Name
1001	De Morgan, Augustus De La Mare, Walter Van Buren, Martin La Fontaine, Jean de O'Connor, Denis

f. Second indicator. A "0" (zero) in the second indicator position specifies that the main entry is not a subject; a "1" specifies that the main entry is a subject.

2. Subfield codes and delimiters. Seven data elements have been defined which require explicit identification by means of subfield codes. The data elements are separated from one another in the data by a delimiter plus a subfield code. Of the seven data elements, five are integral parts of name headings themselves (surname or forename, numeration, title, date, relator). Two are data elements that are used in conjunction with names as subheadings (form subheadings, title).

a. Subfield code "a" - surname or forename. This subfield code is never explicitly input.

1001	Harris, Edwin	(NO DELIMITER)

b. Subfield code "b" - numeration. This subfield code identifies Roman numerals used in the entry element of a name.

1000	Alexander ǂb I, ǂc Emperor of Russia	
1000	Constantinus ǂb XI Dragases, ǂc Emperor of the East, ǂd d. 1453	
1000	Friedrich ǂb I, ǂc Barbarossa, Emperor of Germany, ǂd 1121-1190.	
1000	Mary, ǂc Consort of George V	(NO DELIMITER)
1001	Evans, Montgomery, ǂc II	

c. Subfield code "c" - title. This subfield code identifies all titles designating rank, office, nobility, terms of address, initials of an academic degree or denoting membership in an organization, or any other words or phrases associated with a name.

1001	Kames, Henry Home, ǂc Lord
1000	Anselm, ǂc Brother, F.S.C.
1000	Claude d'Abbeville, ǂc pere
1001	Aungerville, Richard, ǂc known as Richard de Bury, Bp. of Durham, ǂd 1287-1345

d. Subfield code "d" - date(s). This subfield code identifies birth, death, or flourished dates used with a name.

1001	Kames, Henry Home, ǂc Lord, ǂd 1696-1782
1000	Joannes de Rupescissa, ǂd 14th cent.
1001	Lin, Li, ǂd chin shih 1152

e. Subfield code "e" - relator. This subfield code identifies any phrases which describe the relationship between an author and a work (ed., tr., comp., etc.).

1001	Smith, Elsie, ǂd 1900-1945, ǂe ed.

f. Subfield code "k." This subfield code identifies form subheadings used with a name.

1000	Aristoteles. ǂk Spurious and doubtful works.

Headings for anonymous classics based on the lives of persons (headings consisting of personal names to which the term "Legend" has been added) are treated as personal name headings, and the word "Legend" is treated as a form subheading.

1000	Francesco d'Assisi, ǂc Saint. ǂk Legend.

No additional elements beyond a form subheading are identified or delimited.

1000	Cyprianus, ǂc of Antioch. ǂk Legend. Martyrium Cypriani et Justae.

g. Subfield code "t." This subfield code identifies a title used as a subheading with a name (rarely occurs in a main entry).

1001	Shakespeare, William, ǂd 1564-1616. ǂt Hamlet.

Note that in all the above examples, each data element present in any particular name (except the one occurring first) has been explicitly identified by the appropriate subfield code(s) and has been separated in the data from other data elements by a delimiter. Further examples of names illustrating the placement of delimiters follow:

Identification	Name
Forenames:	
1000	Joseph, ǂc *Nez Percé chief*
1000	Thomas ǂc (Anglo-Norman Poet) ǂd *12th cent*.
1000	Chrestien *de Troyes*, ǂd *12th cent*.
1000	Joannes Eleemosynarious, ǂc *Saint*, *Patriarch of Alexandria*, ǂd *d*. 616?
1000	Mary Just, ǂt *Sister*
Single surnames:	
1001	Small, Frank, ǂc *Jr*.
1001	Stuart, John, ǂc *writer on aviation*
1001	Queen, Ellery, ǂc *pseud*.
1001	Sand, George, ǂc *pseud*. *of* Mme. Dudevant, ǂd 1804-1876
1002	Dionysius *Areopagita*, Pseudo- (NO DELIMITER)
1001	Callisthenes, Pseudo- (NO DELIMITER)

Names of writers known under sobriquets, nicknames, etc. (treated as surnames for assigning indicators):

Identification	Name
1001	Corneille, Cornelis van Beverloo, ǂ *known as*, ǂd 1922-
1001	Uccello, Paolo di Dono, ǂc *known as*, ǂd 1396 or 7-1475
1001	Theotocopuli, Dominico, ǂc *called* El Greco, ǂd *d*. 1614
1001	Aungerville, Richard, ǂc *known as* Richard de Bury, *Bp*. *of Durham*, ǂd 1287-1345

C. CORPORATE NAMES (excluding names of meetings and conferences).

1. Indicators. Indicators in the first position are used with corporate names to describe the form of name to facilitate certain filing arrangements and in the second position to specify whether or not the main entry is a subject. Corporate names are divided into three categories. These categories remain the same regardless of the function of the heading. A one-character indicator, placed immediately adjacent to the third character of the tag, defines the category according to the following code:

Numeric indicator	Category
0	Surname (inverted)
1	Place, or place plus name
2	Name (direct order)

Examples:

Numeric tag and indicator	
1100	Little (Arthur D.) inc. (inverted surname)
1101	San Francisco. (place, or place plus name)
1101	San Francisco. Museum of Art. (place, or place plus name)
1102	Berlitz Schools of Languages of America. (name, direct order)

A "0" (zero) in the second indicator position specifies that the main entry is not a subject; a "1" specifies that it is a subject.

Treat names of ships as corporate names.

2. Subfield codes and delimiters. Four types of data elements have been defined which require either implicit or explicit identification by means of subfield codes. The data elements are separated from one another in the data

by a delimiter plus a subfield code. The four types of data elements identified are entry element, each corporate name or corporate subheading following the entry element, form subheadings, and title. Form subheadings and titles are data elements that are used in conjunction with names as subheadings.

a. Subfield code "a" - name or entry element. This subfield code is never explicitly input.

1101	San Francisco	(NO DELIMITER)
1101	San Francisco. ǂb Museum of Art	

b. Subfield code "b." This subfield code identifies each corporate name or corporate subheading following the entry element. In general, this code is used to identify each subheading for which an authority card is made.

1102	Bell and Howell. ǂb Micro Photo Division.
1101	U.S. ǂb Congress. ǂb House. ǂb Committee on Merchant Marine and Fisheries. ǂb Subcommittee on Fisheries and Wildlife Conservation.
1101	U.S. ǂb 87th Congress, 2d session, 1962. ǂb House.
1102	United Presbyterian Church in the U.S.A. ǂb Synods. ǂb Texas.

c. Subfield code "e" - relator. This subfield code identifies any phrases which describe the relationship between a corporate author and a work (plaintiff, complainant, defendant, respondant, etc.).

1102.	Atchison, Topeka and Santa Fe Railway Company, et al., ǂe defendants.
1102	Eastman Kodak Company of New Jersey, ǂe defendant-appellant.

d. Subfield code "k." This subfield code identifies form subheadings used with a name.

1101	U.S. ǂk Laws, statutes, etc.
1102	Hittites. ǂk Laws, statutes, etc.
1102	Jews. ǂk Liturgy and ritual.
1102	British Museum. ǂk MSS. (Bruce 96)

No additional elements beyond a form subheading are identified or delimited unless the subheading is followed by a title in an author/title type heading. In such a case the title is identified by subfield code "t" (see Paragraph C.2.e below).

1102 Catholic Church. ǂk Liturgy and ritual. English.

1102 Orthodox Eastern Church. ǂk Liturgy and ritual. Menaion. English.

1101 Cambridge. ǂb University. ǂb Library. ǂk MSS. (Gg 4.27)

Note: Treat the Declaration of Independence and the Articles of Confederation as a form subheading.

1101 U.S. ǂk Declaration of Independence.

1101 U.S. ǂk Articles of Confederation.

e. Subfield code "t." This subfield code identifies a title used as a subheading with a name (rarely occurs in a main entry).

1101 U.S. ǂb Dept. of State. ǂt The Department of State bulletin.

Note that delimiters are not used between place name units separated by commas or parentheses.

1101 Quebec (Province) (NO DELIMITER)

1101 Medina, Ohio. ǂb Senior High School. ǂb Class of 1966.

1101 Washington (State) ǂb Pollution Control Commission.

D. CORPORATE NAMES - MEETINGS AND CONFERENCES.

1. Indicators. Indicators in the first position are assigned to names of meetings and conferences in the same manner as they are assigned to other corporate names, i.e., to describe the form of name in order to facilitate certain filing arrangements; indicators in the second position specify whether or not the main entry is a subject. Corporate names are divided into three categories. These categories remain the same regardless of the function of the heading. A one-character indicator, placed immediately adjacent to the third character of the tag, defines the category according to the following code:

Numeric indicator	Category
0	Surname (inverted)
1	Place plus name
2	Name (direct order)

Examples:

Numeric tag and indicator	
1110	Mendel (G.) Memorial Symposium 1865-1965, Brünn, 1965. (surname inv.)
1111	Paris. Peace Conference, 1919 (place plus name)
1112	Conference on Categorical Algebra, University of California, San Diego, 1965. (name, direct order)

A "0" (zero) in the second indicator position specifies that the main entry is not a subject; a "1" specifies that the main entry is a subject.

2. Subfield codes and delimiters. Eight data elements have been defined that require explicit identification by means of subfield codes (name, number, place, date, each corporate subheading, miscellaneous, form subheadings, title). The data elements are separated from one another in the data by a delimiter plus a subfield code.

a. The most frequently occurring data elements in names of meetings and conferences are those that are characteristic of this type of name, i.e., name, number, place, and date, identified by subfield codes as follows:

Subfield code	Data element
a	Name of meeting
b	Number of meeting
c (expressed only once though more than one place may occur in the heading)	Place held
d	Date held

These data elements occur most frequently in two patterns: name, number, place, date; or name, place, date.

Numeric tag and indicator	Data
1112	Name, ǂb Number, ǂc Place, ǂd Date
1112	Name, ǂc Place, ǂd Date

Examples:

1112	Nobel Conference, ǂb 1st, ǂc Gustavus Adolphus College, ǂd 1965.
1112	Symposium on Physical Activity and the Heart, ǂc Helsinki, ǂd 1964.

Note that the place unit can be made up of the name of an institution and/or

5 place name.

1112	Conference on Categorical Algebra, ǂc University of California, San Diego, ǂd 1965.

Note also that when the entry element for the name of a meeting or conference is a place name, a delimiter is not inserted between the place and the name. This is different from the procedure followed for other corporate names.

1111	Paris. Peace Conference, ǂd 1919.

b. Subfield code "e." This subfield code identifies each corporate subheading used with a name of a meeting or conference. Its use is similar to the use of subfield code "b" for other corporate names.

1112	International American Conference. ǂb 1st, ǂc Washington, D.C., ǂd 1889-1890. ǂe Delegation from Haiti.

c. Subfield code "g." This subfield code identifies any "miscellaneous" data elements that may occur in meeting or conference headings and which are not identified by any other subfield code.

1112	International Congress of Architects. ǂb 15th, ǂc Washington, D.C., ǂd 1939. ǂg (Projected, not held)

d. Subfield code "k." This subfield code identifies form subheadings used with a name and is used in the same manner as for other corporate names.

e. Subfield code "t." This subfield code identifies a title used as a subheading with a name (rarely occurs in a main entry).

1112	Symposium on Physical Activity and the Heart, ǂc Helsinki, ǂd 1964. ǂt Proceedings.

E. UNIFORM TITLE HEADINGS.

A uniform title heading is a title used as a bibliographic entry, i.e., main entry, subject entry, or added entry. It must be distinguished from those uniform titles, often called "conventional" or "filing" titles, which can be interposed in square brackets between the main entry and the transcription of the title page. Works entered under title (such as periodicals, encyclopedias, etc.) which have no main entry other than the title, are tagged 245. If these titles are used on other records as added entries or subject entries, they are tagged as uniform title headings.

Numeric tag	
130	Chanson de Roland
130	International review (Zürich)

Treat as uniform title headings, headings consisting of names of radio programs, motion pictures, etc., and names of anonymous works, and some treaties and intergovernmental agreements, concordats, composite manuscripts or manuscript groups which have been given uniform titles or designations.

130	Americans at work (Radio program)
	Elephant boy (Motion picture)
	Habakkuk commentary
	Book of Lismore
	Dead Sea scrolls
	Moabite stone
	Manuscript treatise on arithmetic. Latin. 14th cent.
	Versailles, Treaty of, June 28, 1919 (Germany).

Exceptions:

a. Treat headings for manuscripts having no name and consisting of the name of a repository followed by MSS. and the respository's designation for the manuscript as corporate name headings.

1101 Cambridge. ǂb University. ǂb Library. ǂk MSS. *(Gg. 4.27)*

b. Treat headings for anonymous classics based on the lives of *persons* (headings consisting of personal names to which the term "Legend" has been added) as personal name headings.

1000 Francesco *d'Assisi*, ǂc *Saint*. ǂk Legend.

If, however, a heading consists of a holy thing to which the term "Legend" has been added, treat the heading as a uniform title heading.

130 Grail. Legend.

1. *Indicators*. No indicators in the first position are input for uniform title headings except when they are used as added entries (tag 730). A "0" (zero) in the second indicator position specifies that the main entry is not a subject; a "1" in the second position specifies that it is a subject.

2. *Subfield codes and delimiters*. Two data elements have been defined which require explicit identification by means of subfield codes (name, title).

a. Subfield code "a" - name or entry element. This subfield code is never explicitly input.

130 Chanson de Roland

130 International review *(Zürich)*

b. Subfield code "t." This subfield code identifies a title used as a subheading with a uniform title heading (rarely occurs in a main entry).

130 Chanson de Roland. ǂt The song of Roland.

130 Siège d'Orléans (*Mystery play*) ǂt Saint Joan of Orléans.

UNIFORM TITLE (240)

A. IDENTIFICATION.

1. Tag. Tag a uniform title 240.

2. Indicators. Add "1" as an indicator in the first position to the tag of a uniform title. The second indicator position is always blank.

Numeric tag and indicator	
2401	⌐Immigration and nationality act¬

3. Subfield codes and delimiters. No subfield codes or regular delimiters are explicitly input for this field. Data elements are separated from one another by a delimiter plus a subfield code.

ROMANIZED TITLE (241)

Whenever the title in a record is in non-Roman characters, two sets of procedures must be followed: (1) the editing steps necessary to prepare the title field for input and (2) the editing steps necessary to prepare the "Title romanized" note for input.

A. TITLES IN NON-ROMAN CHARACTERS. The editing procedures for preparing for input a title field in non-Roman characters are very similar to those followed in preparing notes containing non-Roman characters (cf. paragraph B.2 of the section for bibliographic notes).

1. Titles in non-Roman characters will be romanized for input.

2. Delete the non-Roman characters, supply the romanized characters (from the "Title romanized:" note such as found in LC cataloging) followed by the phrase "(romanized form)", and enclose the romanized characters plus the phrase "(romanized form)" in brackets. The brackets are necessary to indicate that the characters which they enclose actually do not appear on the title page.

B. "TITLE ROMANIZED" NOTE. "A note beginning 'Title romanized' is included in the entry for each work the title of which is in non-Roman characters ... This note is placed in the lower right corner of the entry, following the tracing" (AACR 150). Observe the following procedures in editing the "Title romanized" note:

1. Tag. The tag for a romanized title is 241.

2. Indicators. Indicators are used to show the presence or absence of a simple title added entry (defined by the use of the word "Title." alone in the tracing). A one-character indicator, placed immediately adjacent to the third character of the tag specifies this condition according to the following code:

Numeric indicator	
0	"Title." not in tracing
1	"Title." in tracing

Note that this procedure is analagous to the one followed with respect to title added entries derived from the short title (245). The only difference is that in the case of a record with Roman alphabet characters, the title added entry, if any, is derived from the characters in the short title (245); in the case of a record with non-Roman characters at the beginning of the title field, the title added entry, if any, is derived from the characters in the "Title romanized:" note rather than from the title itself. This is done so that the characters actually used for the added entry are characters from Roman rather than non-Roman alphabets.

3. Subfield codes and delimiters. No subfield codes and delimiters are explicitly input for this field.

TITLE STATEMENT (245).

The title statement includes the title and all information up to, but not including, the next field (edition statement when present; otherwise, imprint). A full title is defined as the distinguishing name of any work and includes the alternate title and subtitle when present. In addition, a title statement may consist of components named and defined as follows:

Short title - that part of the title up to the first logical break--usually a punctuation mark. The short title is equal to the title added entry as defined by the word "Title." in the tracing. The word "Title." refers to that portion of the title which extends up to the first mark of punctuation, unless the cataloger has indicated otherwise. When the short title has not been defined by the presence of a simple title added entry in the tracing, the editor must make his own determination as to where the short title ends. In making this judgment, bear in mind that the short title should be long enough to identify the work and should also be comprehensible.

Remainder of the title - that part of the full title (including alternate titles, subtitles, other titles in the same language, titles in other languages) after the short title and extending up to the remainder of the title page transcription.

Remainder of the title page transcription up to the next field - that part of the title page transcription after the full title and extending up to the next field. The remainder of the title page transcription generally includes statements of authorship, illustration, etc.

A. IDENTIFICATION.

1. Tag. The tag for title is 245.

2. Indicators. Indicators in the first position are used to show the presence or absence of a simple title added entry. If the title is to be traced, the computer program will automatically create "I. Title." as a tracing. A one-character indicator, placed immediately adjacent to the third character of the tag specifies this condition according to the following code:

Numeric indicator	
0	"Title." not to be in tracing
1	"Title." automatically put in tracing

Examples:

2450	Chinese medicine, by Pierre Huard. (NO TITLE ADDED ENTRY)
2451	Messenger to the golden people; the story of Lennie Iglesias by Margaret G. Iglesias (TITLE ADDED ENTRY)

The second indicator position is always blank.

3. Subfield codes and delimiters. Three data elements have been defined which require explicit identification by means of subfield codes (short title, remainder of title, remainder of title page transcription up to the next field). The data elements are separated from one another in the data by a delimiter plus a subfield code.

a. Subfield code "a" - short title. This subfield code is never explicitly input.

2451 Sold for silver. 1st ed.

The indicator specifies that a title added entry is to be made. No delimiter is required in the title because it consists of only one component. No delimiter is necessary to separate the title statement from the edition statement because the latter will receive its own tag which also serves as a separator between fields.

Observe the following practices with respect to delimiting short titles:

1) Titles with dates that take the form "1964-1968": delimit the short title after the date.

2451 Disarmament and Soviet policy, 1964-1968, ǂc
by Thomas B. Larson.

2) Titles with a colon as first mark of punctuation: delimit the short title on the basis of the next logical break after the colon.

2451   Canada 2067: Canada in the next century, ǂc
by John Smith.

3) Titles with brackets in the middle of the data: exercise judgment and delimit the short title on the basis of the next logical break after the bracketed data.

2451   Catalogue of musical instruments [in the]
Victoria and Albert Museum ǂc [by] Raymond Russell.

b. Subfield code "b" - remainder of the title.

2451   Sold for silver; =b an autobiography, =c by Janet Lim.

The indicator specifies that a title added entry is to be made. The delimiter after "silver;" separates the short title from the remainder of the title and in so doing specifies for the computer the characters comprising the title added entry. This same delimiter also specifies where the "remainder of the title" begins and the delimiter after "autobiography" specifies where it ends.

c. Subfield code "c" - remainder of the title page transcription up to the next field.

2451   Sold for silver; ǂb an autobiography, ǂc by Janet Lim.

The indicator specifies that a title added entry is to be made. The computer program will add "I. Title." as a tracing. The delimiter after "autobiography," separates the remainder of the title from the remainder of the title page transcription up to the next field. This delimiter specifies for the computer the characters comprising the full title of a work.

The following examples further illustrate the assignment of subfield codes and placement of delimiters for titles:

2451 Myrdal, Gunnar, 1898-
Monetary equilibrium. New York, A.M.
Kelley, 1965.

The title consists of only one component identified by subfield code "a," which is never explicitly input.

2451 Culver, Eloise Crosby.
Great American Negroes in verse, 1723-1965. ‡c
Illustrated by Lois Mailou Jones. ⌊Washington, ⌋
Associated Publishers, c1966⌋

The title consists of two components: short title and remainder of title page transcription up to the next field. Subfield code "a," which identifies the short title component, is not explicitly input. Subfield code "c" identifies the remainder of the title page transcription up to the next field.

2451 Blanchard, William H.
Rousseau and the spirit of revolt; ‡b a
psychological study, ‡c by William H. Blanchard.
Ann Arbor, University of Michigan Press ⌊1967⌋

2451 Mosonyi, Esteban Emilio.
Los yaruros de Guachara ‡b (tó-ánabÉ kjOrÓ
jirí pumÉ guidirÓ) Ensayo de planificacion
indigenista integral. Caracas, 1965.

2450 Hommage à Henri Berr (1863-1954); ‡b commemoration
du centenaire de sa naissance. ⌊Paris⌋
Éditions A. Michel ⌊1965⌋

The example beginning with "Hommage" illustrates a work entered under title. Since there is no title added entry, the indicator used is "0." The title statement consists of a short title and the remainder of the title. The short title should be long enough to identify the work and give an adequate sense of its nature.

2451 Witvrouw, Marcel.
Le comportement humain. ‡b L'homme dans
la société ‡c ⌊par⌋ M. Witvrouw et R.
Remouchamps. Bruxelles ...

2451 Bento, Antônio.
Panorama da pintura moderna brasileira. ǂb
Panorama de la peinture moderne bresilienne.
Panorama of modern Brazilian painting. ǂc Text
by Antonio Bento; [comments on the pictures
by José Paulo Moreira da Fonseca. Rio de
Janeiro?] EdiArte, 1966-

The example under Bento illustrates a record with a title in several languages. The two titles after the first (short title) make up the remainder of the title and are identified by subfield code "b".

2451 Dumas, Alexandre, 1802-1870.
La Reine Margot. ǂb [Roman.] ǂc Pref. de
Gilbert Sigaux. Lausanne, Ed. Rencontre, 1967.

2450 Descartes, René, 1596-1650.
Descartes. ǂb [Selección de textos; ǂc
estudio preliminar de] Risieri Frondizi.
[Buenos Aires] Centro Editor de America
Latina [1967]

2451 Avéroff, Michelle.
Jadis en Romanie ... ǂc Introduction de
M. Andre Mirambel ... Paris, les Belles
lettres, 1965.

2450 U.S. Library of Congress. Map Division.
A list of maps of America in the Library
of Congress. ǂb Preceded by a list of works
relating to cartography, ǂc by P. Lee Phillips,
Chief of the Division of Maps and Charts.
New York, B. Franklin [1967?]

2450 Sucre, Venezuela
Anteproyecto: Plan de desarrollo económico
y social del estado Sucre; ǂb primera presentación
(1960) a la Asamblea Legislativa. [Cumaná, Impr.
del Estado, 1960?]

2450 London. University. Institute of Germanic Studies.
Hofmannsthal; studies in commemoration. ǂc Edited
by F. Norman, director. London, 1963.

Note that in the example under London the semicolon following Hofmannsthal is the first logical break, but a delimiter at this point would result in only "Hofmannsthal" appearing in a title listing. Since this is less informative than "Hofmannsthal; studies in commemoration," the short title would be better extended through "commemoration." In reality, the "short title" and the full title become the same, identified by subfield code "a," which is not explicitly input.

2451 1842 [i.e. Mil ocho cientos cuarenta
y dos]; ǂb panorama y significación del
moviemiento literario.

2451 Dr. [i.e. Doktor] Katzenberger's Bad-Reise.

The two examples above illustrate titles beginning with numerals or abbreviations in which words have been supplied and enclosed within brackets. For purposes of inserting delimiters, the words in brackets are regarded as part of the data element to which they refer.

EDITION STATEMENT (250)

The edition statement includes the edition statement proper and any other information up to the imprint.

A. IDENTIFICATION.

1. Tag. The tag for edition statement is 250.

2. Indicators. No indicators are used in either position with this field.

3. Subfield codes and delimiters. Two data elements have been defined which require explicit identification by means of subfield codes (edition statement proper and remainder of information up to the imprint). The data elements are separated from one another in the data by a delimiter plus a subfield code.

a. Subfield code "a" - edition statement proper. The edition statement proper includes all descriptive words and numbers describing the edition up through the word "edition" or its equivalent and any terms such as "revised" or "enlarged" which immediately follow it. In general, the edition statement should contain sufficient information to distinguish it from another edition. This subfield code is never explicitly input.

250	⌊1st English-language ed.⌉
250	⌊1st ed. in the U.S.A.⌉
250	1st ed., revised impression.
250	Lambert, Johann Heinrich, 1728-1777. Philosophische Schriften. Hrsg. von Hans Werner Arndt. (Nachdruck der Ausg. 1764-71) Hildesheim, Gg. Olms, 1965.
250	Hillebrandt, Alfred, 1853-1927 Vedische Mythologie. (Reprografischer Nachdruck der 2. veränderten Aufl. Breslau 1927-29) Hildesheim, Gg. Olms, 1965.

b. Subfield code "b" - remainder of information up to the imprint after the edition statement proper.

Numeric tag	
250	2d ed., rev. and enl. ǂb by W. H. Chaloner.
250	New rev. and enl. ed. ǂb With appendix: the coins and banknotes of the British Mandatory Government of Palestine.
250	3d ed., completely revised and brought up to date. ǂb With a foreword by J. Jones.
250	4. Aufl. ǂb Mit 55 Abbildungen. (Übers. aus dem Russischen von Hardwin Jungclaussen)

IMPRINT (260).

A. IDENTIFICATION.

1. Tag. The tag for imprint is 260.

2. Indicator. The publisher is sometimes omitted from the imprint because it is the same as the main entry (AACR 140D). When this occurs, an indicator in the first position will show whether the name of the publisher is to be found in the main entry as follows:

Publisher is not main entry	0
Publisher is main entry	1

The second indicator position is always blank.

3. Subfield codes and delimiters. Three data elements have been defined which require explicit identification by means of subfield codes in the identification block (place, publisher, date). The data elements are separated from one another in the data by a delimiter plus a subfield code.

a. The data elements in imprints are identified by subfield codes as follows:

Subfield code	Data element
a (never explicitly input when occurring as the first data element in the field)	Place
b	Publisher
c	Date

These data elements occur most frequently in four patterns; therefore, implicit identification blocks may be used to represent these patterns as follows:

Numeric tag	Data
260	Place, ǂb Publisher, ǂc Date
260	Place, ǂa Place, ǂb Publisher, ǂc Date
260	Place, ǂa Place, ǂa Place, ǂb Publisher, ǂc Date
260	Place, ǂb Publisher, ǂa Place, ǂb Publisher, ǂc Date
260	Place, ǂc Date
260	Place, ǂa Place, ǂa Place, ǂa Place, ǂb Pub, ǂc Date

b. The abbreviations "n.p.," meaning "no place," and "n.d." meaning "no date," are to be regarded as data elements.

260	[n.p.] ǂb Smith, ǂc 1968.
260	New York, ǂb Smith ǂc [n.d.]

c. The data element "publisher" may include distributing agents or other kinds of statements. Regard all such statements as part of the "publisher" data element.

260	Washington, ǂb Published for the Library of Congress by the Gertrude Clarke Whittall Poetry and Literature Fund; [for sale by the Superintendent of Documents, U.S. Govt. Print. Off.] ǂc 1964.
260	Manila, ǂb Philippine Education Foundation; distributed by University Book Supply, ǂc 1961.
260	Madrid, ǂb Editorial Razón y Fe; exclusiva de venta: Ediciones FAX ǂc [1963]

d. The data element "date" may include more than one date.

260	New York, ǂb Smith, ǂc 1965, c1964.

Examples of imprints:

Numeric tag	
260	Hanley, Stoke-on-Trent, ǂb Central Library, ǂc 1967.
260	Graz, ǂa Wien, ǂa München, ǂb Universal Verlags- und Vertriebsgesellschaft ǂc (1966)
260	London, ǂb Macmillan; ǂa New York, ǂb St Martin's Press, ǂc 1961 [c1960]
	Paris, ǂb Impr. Vincent, ǂc 1798 ǂa [i.e. Bruxelles, ǂb Moens, ǂc 1883]

COLLATION (300)

A. IDENTIFICATION.

1. Tag. The tag for the collation is 300.

2. Indicator. No indicators are used in either position with this field.

3. Subfield codes and delimiters. Three data elements have been defined which require explicit identification by means of subfield codes (paging or volume(s), illustrations, height). The data elements are separated from one another in the data by a delimiter plus a subfield code.

a. The data elements in the collation are identified by subfield codes as follows:

Subfield code	Data element
a (never explicitly input when occurring as the first data element in the field)	Paging
b	Illustrations
c	Height

These data elements often occur in the following pattern: paging, illustrations, height.

Numeric tag	
300	Paging, ǂb Illustration, ǂc Height
300	Paging, ǂc Height

b. When the two parts of the collation devoted to paging and illustrative matter are combined, treat the data as the "paging" subfield.

300	vi, 201 p. (p. 198-201 advertisements) ǂb maps. ǂc 22 cm.
300	120 p. (chiefly illus., maps, ports.) ǂ 25 cm.

300	1 v. (chiefly illus., maps) ǂc 25 cm.
300	1 portfolio ([2]ℓ, 72 plates) ǂc 25 cm.
300	74 p., 15 p. of music ǂc 25 cm.
300	8ℓ., 65 p. of illus. ǂc 25 cm.
300	270 p. with illus. ǂc 21 cm.
300	83 maps. ǂc 33 cm.
300	60 p., 60 col. plates. ǂb 15 illus. (part col.) ǂc 32 cm.
300	geneal. table. ǂc 55 x 43 cm. fold. to 43 x 31 cm.

c. Volumes or portfolios consisting of plates and not numbered consecutively with the other volumes of a set are specified separately in the collation. For purposes of inserting the delimiter and subfield code, regard such volumes or portfolios as part of the "paging" data element.

300	3 v. and atlas (10 plates) ǂc 30 cm.
300	169 p. and atlas (3ℓ., 18 plates) ǂc 28 cm.
300	3ℓ., 100 p. ǂb illus. ǂc 25 cm. ǂa and portfolio (24 plates) ǂc 30 cm.
300	6 v. ǂb illus., maps. ǂa and 3 atlases (maps, plates) ǂc 22 cm.
300	9 v. in 11. ǂb maps, plates. ǂa and atlas (2 v. maps) ǂc 26 cm.

BIBLIOGRAPHIC PRICE (350)

The price (or prices) of an item may occur in the record.

A. FORM IN WHICH RECORDED. The price appears in a variety of forms, summarized as follows:

1. The price appears after the size or the series statement, as the case may be.

2. In general, the price is recorded without an abbreviation for the name of the currency and in the form 0.00, e.g.

2.50
4.00
12.00
0.75

3. The price may contain a dollar sign, e.g., $4.50, $0.50, etc. In the case of countries using pounds, shillings, and pence, three "places" are provided if the price includes pounds and two "places" if the price includes shillings and pence, e.g.

3/14/-	i.e. 3 pounds, 14 shillings, no pence
14/-	i.e. no pounds, 14 shillings, no pence
-/10	i.e. no pounds, no shillings, 10 pence

4. In the case of the Italian lira and the Japanese yen, the decimal point and the two zeros to its right will not be added, e.g.

186
900

5. In some instances the price field will contain information following the number used to specify the price, e.g.

350 Saudi riyals
43 Mexican pesos
4.95 per vol.
12.50 (v. 1); 0.50 (v. 2)
12.50 (v. 1) varies
12.50 (v. 4)
1.20 (pbk)
12.00 (de luxe binding)
6.00 (to members)
15.00 (on subscription)

6. In some instances the price field will contain multiple prices, e.g.

47/6 ($5.75)
2.00 (2.15 Can)
12.50 (v. 1); 0.50 (v. 2)

7. In some instances the price field will contain the designations "unpriced," or "gratis."

B. IDENTIFICATION.

1. Tag. The tag for bibliographic price is 350.

2. Indicator. No indicators are used in either position with this field.

3. Subfield codes and delimiters. Each occurrence of a price is treated as a data element and is identified by subfield code "a." If two or more prices occur, insert a delimiter and subfield code between each price.

350	47/6 ǂa ($5.75)
350	12.50 (v. 1) ǂa 0.50 (v. 2)

SERIES STATEMENT

Each series statement is treated as a variable field and is tagged accordingly. A distinction is made between series traced the same as in the series statement and those traced differently or not at all. This distinction is made because in a machine record the appropriate tracing and the appropriate series added entry can be generated from the series statement itself as long as the data in the series statement and the tracing are the same. It then becomes unnecessary to input the series tracing at all. However, if the series is traced in a form different from that in the series statement, the series added entry itself must be tagged and input along with the other added entries in the tracing.

A further distinction is made between author/title series and title series.

A. AUTHOR/TITLE SERIES STATEMENT. The series added entry will be automatically traced in the same form (represented by "(Series)" or "Series:" followed by the data in the same form as in the series statement).

Numeric tag	
400	Personal name/Title
410	Corporate name/Title
411	Meeting or conference name/Title

1. Tag. Construct the tag according to the instructions in the section "Main Entries," substituting a "4" as the first digit of the numeric tag.

2. When the author in an author/title series is represented by the possessive pronoun Its, His, or Her, refer to the main entry for the author portion of the series statement. When the computer prints an added entry, it will substitute the main entry for Its, His, or Her.

1102 New York University. ǂb C. J. Devine Institute of Finance.
The commercial banks in a changing world ...

4102 (*Its* ǂt Bulletin, ǂv no. 26)

3. *Indicators*. Indicators in the first position are the same as those described in the section "Main Entries." A "0" (zero) in the second position specifies that the author of the series is not a main entry; a "1" specifies that the author is a main entry.

4. *Subfield codes and delimiters*. Insert a delimiter and subfield code "t" between the author element and the title element in an author/title series statement (see example above).

a. When the series is numbered, insert a delimiter and a subfield code "v" between the number and the rest of the series (see example above).

B. TITLE SERIES STATEMENT. The series added entry will be automatically traced in the same form (represented by "(Series)" or "Series:" followed by the data in the same form as in the series statement).

1. *Tag*. Write the tag 440 in front of the series statement.

440 (Developmental medicine and child neurology. Supplement ǂ no. 5)

2. Some series statements may consist of two elements, in which the first element is itself a title (e.g., the name of a periodical or a monographic series) and the second element is an element related to or dependent upon the first element (e.g., a subseries).

(Better homes and gardens. Holiday cookbook series, 6)

(Élites et responsabilités. Journées d'études)

Treat this type of series statement as a title series statement, *not* as an author/title series statement.

440	(Better homes and gardens. Holiday cookbook series, ǂv 6)
440	(Élites et responsabilités. Journées d'études)

In this type of series, the first element may occur as the main entry and be represented in the series statement by the possessive pronoun *Its*. In this situation, the main entry will be tagged as a uniform title heading. Nevertheless, the series statement should be tagged 440. Since the series is regarded as a title series, no delimiter and subfield code should be inserted to separate the two elements of the series statement.

130	Better homes and gardens.
2451	Christmas cook book ...
440	(*Its* Holiday cookbook series, ǂv 6)

130	Sunset.
2451	Barbecue cookbook ...
440	(*Its* Cookbooks)

3. *Indicators*. No indicators are used in either position with this field.

4. When the series is numbered, insert a delimiter and subfield code "v" number and the rest of the series (see example above).

C. SERIES STATEMENT NOT TRACED OR TRACED DIFFERENTLY. This type of series is not traced or traced in a form different from that in the series statement.

1. *Tag*. Write the tag 490 in front of the series statement.

2. *Indicator*. An indicator is used in the first position to show whether the series is traced or not as follows:

Numeric indicator	
0	Series is not traced (untraced)
1	Series is traced in different form from series statement.

Place the appropriate indicator immediately adjacent to the third character of the tag in the identification block.

4900	(Loeb classical monographs)	(NOT TRACED)
4901	(Schriften des Vereins fur Socialpolitik, n.F., Bd. 28)	(TRACED IN DIFFERENT FORM)

Note that this tag is used when (as in some series-subseries combinations) there is only one series statement but more than one series traced.

4901	U.S. Dept. of State Confuse and control: Soviet techniques in Germany ... (Its Publication 4107. European and British Commonwealth series, 17)
8101	U.S. ǂb Dept. of State. ǂt Publication ǂv 4107.
8101	U.S. ǂb Dept. of State. European and British Commonwealth series, ǂv 17)

The second indicator position is always blank.

D. SERIES STATEMENT WITHIN A GENERAL NOTE. Occasionally a series statement will occur within a general note. Tag only the general note, not the series statement.

500	Photo-offset. Spartanburg, S. C., Reprint Co., 1968. (New York heritage series, no. 4)

BIBLIOGRAPHIC NOTES

Each note is treated as a separate variable field and is tagged accordingly. The various types of notes and their tags are as follows:

Numeric tag	Type of note
500	General notes
501	"Bound with" notes
502	Dissertation note
504	Bibliography note
505	Contents note (formatted)
520	Annotation or abstract

When a record contains more than one note, repeat the numeric tags.

No subfield code or delimiters in the data are explicitly input.

Use the following guidelines in assigning the appropriate tags to notes. Where relevant, the corresponding rule number of the Anglo-American Cataloging Rules is given. Consult these rules for a full description of the type of note.

1. General notes (500). Treat as general notes all notes that do not otherwise fit into the categories specified.

No indicators or subfield codes are used.

2. "Bound with" note (501) (AACR 146). A note specifying that a work is bound with another work. No indicators or subfield codes are used. "Bound with" notes usually begin with the words:

Bound with
With, as issued,
In case, as issued, with

3. Dissertation note (502) (AACR 147). Usually a brief formal note giving the designation of a dissertation and the institution to which it was presented. No indicators or subfield codes are used. Examples:

Thesis--Yale.

Thèse--Lyon.

Inaug.-Diss.--Heidelberg.

A biographical sketch of the author accompanying his thesis is noted as "Vita." Treat such a note as a general note. Use the tag "502" only for the type of note that explicitly states that a work is a thesis. If a note is of the type that relates the work in hand to a thesis ("Based on ..."; "First published as ..."), treat it as a general note.

4. Bibliography note (504) (AACR 149). A note indicating that a work contains a bibliography, discography, filmography, or some kind of bibliographical apparatus. Usually the note consists of the word "Bibliography:" followed by page references. No indicators or subfield codes are used. Examples:

Bibliography: p. 25-35.

Bibliographical footnotes.

Includes bibliographies.

"Reading lists": p. 851-910.

Discography: p. 150-152.

5. Contents note (formatted) (505) (AACR 149). A note appearing in formatted form after the words "Contents" or "Partial Contents" specifying the contents of a work. Treat those contents notes that appear as informal statements as general notes.

Contents notes beginning with the word "Contents" are divided into two groups. When the cataloger has the entire set at hand, the contents note is considered to be "complete." When the cataloger has only a portion of the set at hand, the contents note reflects the available volumes and the note is considered to be "incomplete."

"Partial contents" is used when the cataloger has the entire set at hand but chooses to describe only a portion of the set in the contents note. These three types of contents will be specified by means of an indicator in the first position as follows:

Numeric indicator	Condition	
0	Contents.--	"complete"
1	Contents.--	"incomplete"
2	Partial Contents.--	"complete"

The words "Contents.--" or "Partial Contents.--" preceding a formatted contents note will not be carried in the machine-readable record. Therefore, do not insert these words preceding a contents note.

The second indicator position is always blank.

6. Annotation (520). Annotations appear on records that have been designed for a catalog of children's literature.

SUBJECT ADDED ENTRIES

Each subject added entry is treated as a variable field and is tagged accordingly.

A. IDENTIFICATION.

Seven categories of main subject headings have been defined:

Numeric tag	
600	Personal name
610	Corporate name (excluding political jurisdiction alone)
611	Meeting or conference name
630	Uniform title heading
650	Topical subject heading
651	Geographic name (including a political jurisdiction alone or with subject subdivision)
690	Local subject headings.

Note that the first four categories are categories common to other types of entries and are to be tagged, formatted, and delimited according to the instructions in the section "Main entries." Substitute a "6" as the first character of the numeric tag. Indicators in the first position are the same as those prescribed in the section "Main Entries." In the second position, a "0" (zero) designates a LC subject heading; a "1", a subject heading assigned for use in a children's catalog; a "2", an NLM subject heading; a "3", an NAL subject heading. When a record contains more than one subject added entry, use a separate tag for each tracing.

1. Tags. Write a tag in front of each subject added entry.

a. Personal names (600). This category includes:

1) Names of actual persons, capable of authorship.

2) Names of persons used with the phrase "in fiction, drama, poetry, etc." Use the appropriate indicators for the first position and subfield codes. Treat the phrase "in fiction, drama, poetry, etc." as a form subheading and identify it with a delimiter and subfield code "k".

6001 Shakespeare, William, ǂd 1564-1616, ǂk in fiction,
drama, poetry, etc.

3) Names of families.

4) Titles of books entered under personal author.

6001 Gide, André Paul Guillaume, ǂd 1869-1951.
ǂt Prometheus misbound.

b. Corporate names (610,611). This category includes:

1) Names of organized bodies, established under their own names or under the political jurisdiction in which they are located or of which they are a part. (The name of a political jurisdiction standing alone is tagged 651. See category e.)

2) Names of entities such as ships, which are sometimes used as author headings.

3) Titles of books or serials entered under corporate author.

1102 Fertilizer Corporation of India, ltd. ǂb Planning
and Development Division. ǂt Quarterly bulletin.
Supplement.

c. Uniform title headings (630). This category also includes all titles of works entered under title such as "The Atlantic."

d. Topical subject headings (650). This category is a very broad category, best described as including all subject headings not belonging to any of the other categories that have been defined. A representative but by no means exhaustive listing of the kinds of subject headings identified as topical follows:

1) General terms of the type included in the LC list of subject headings, e.g., "dogs"; "chemistry."

2) Systematic names of families, genera, and species in botany and zoology, and chemical compounds.

3) Names of events and holidays, e.g., Battle of Tannenberg; Red Wing Potteries Strike, 1967; Phoenix Park Assassination, 1882.

4) A wide variety of names or terms applied to individual objects or classes of objects, e.g.:

Neo (Artificial language)
Zinov'ev letter
Arthur Olaf Andersen Japanese Print Collection
Mauser pistol
AUNTIE (Computer system)
Rolls-Royce automobile
Caracas. Bolivar Statue
Beechcraft 17 (Aeroplanes)
Canadian intelligence test
Space flight to Mercury

Babwende (Bantu tribe)
Operation Long Jump

5) Exception: When a subject heading consists of a personal name in catalog entry form followed by the phrase "in fiction, drama, poetry, etc.," treat the name in the same manner as personal names. Use tag 600, the appropriate indicators, and the appropriate subfield codes. See paragraph A.1.a.2) of this section.

e. Geographic names (651). This category includes:

1) Political jurisdictions--alone or subdivided by subject terms.

651 France.

651 France-- ǂx Bibliography.

651 U.S.-- ǂx Description and travel.

Political jurisdictions subdivided by names of organized bodies are considered corporate names, category b above.

6101 France. ǂb Ministère des affaires étrangères.

6101 U.S. ǂb Dept. of State.

There are some headings that have the appearance of the type just discussed, but are actually headings consisting of non-administrative entities (e.g., neighborhoods in cities) entered under a place. Headings of this type (e.g., Chicago. Kenwood) are tagged as geographic names (651), not as corporate names (610).

2) Natural features, e.g., bays, capes, rivers, mountains, deserts, etc.

3) Geographical regions and celestial bodies, e.g., names of continents, land masses, planets, stars, etc.

4) Archeological sites.

5) Parks (not capable of authorship), etc.

f. Local subject headings (690). This category includes subject headings for which there is no provision elsewhere.

2. Indicators. Subject headings tagged 690 have no indicators. Otherwise, two indicators are used with each subject added entry: one to describe the form of name and one to identify the source of the subject heading.

a. First indicator--form of name.

1) Fields 600, 610, and 611. For these fields, select the indicator which describes the form of name according to the instructions in the section "Main entries."

2) Fields 630, 650, and 651. Since no indicators describing form of name have been defined for these fields, the first indicator position is automatically set to a null condition by program. The null condition, which means that no "intelligence" is being carried in the indicator position, is represented graphically on the cathode ray tube screen as a blank.

b. Second indicator--source of subject heading. A second indicator is used with each subject added entry to identify the source of the subject heading according to the following code:

Numeric indicator	
0	Regular LC subject heading
1	Subject heading assigned for use in a children's catalog
2	NLM subject heading
3	NAL subject heading
4	Subject heading supplied by one of various other libraries

3. Subfield codes. Use the appropriate subfield codes according to the instructions in the section "Main entries." Use additional subfield codes as follows:

a. Fields 650 and 651. Whenever these fields contain headings consisting of names or terms entered under place, subfield code "a" identifies the entry element and subfield code "b" identifies the data element following the entry element. This treatment is analogous to that given corporate names entered under place. Since the data element identified by subfield code "a" occurs first, subfield code "a" should not be explicitly input; subfield code "b" should always be explicitly input with a delimiter.

650	Caracas. ǂb Bolivar Statue.
651	Chicago. ǂb Kenwood.

b. The phrase "in fiction, drama, poetry, etc." This phrase is used with personal names. Treat the phrase as a form subheading and identify it with a delimiter and subfield code "k".

6001	Shakespeare, William, ǂd 1564-1616 ǂk in fiction, drama, poetry, etc.

c. Subject subdivisions. Each subject subdivision is identified as follows:

Subfield code	Data element
x	Subdivisions other than period or place
y	Period subdivision includes Early works to 1800 Early works to 1900 Pre-Linnaean
z	Place subdivision

As with other data elements, subject subdivisions must be marked off in the data by a delimiter and a subfield code. Moreover, the delimiter and subfield code will serve as a substitute for the dash which should not be inserted.

650	Art ǂx History ǂy 19th century.
650	Zoology ǂz Cocos Island.
6001	Sheridan, Philip Henry, ǂd 1831-1888 ǂx Juvenile fiction.
651	Gt. Brit. ǂx History ǂy Puritan Revolution, 1660 ǂz Sources.

Assigning subfield codes for subject subdivisions is a straightforward procedure in the majority of instances. The following guideline summarizes these procedures: All fields require the explicit expression of all subfield codes except "a" when it identifies the first data element.

d. Author/title subject added entries with subject subdivision. Only a general subject subdivision (identified by subfield code "x") may occur with an author/title subject added entry. This general subdivision subfield is in addition to the subfield codes which may be used for main entries. Period ("y") and place ("z") subject subdivisions may not be used with an author/title subject added entry.

ADDED ENTRIES (EXCLUDING SUBJECT AND SERIES)

Each added entry is treated as a variable field and is tagged accordingly.

A. IDENTIFICATION.

Six categories of added entries have been defined:

Numeric tag	
700	Personal name
710	Corporate name
711	Meeting or conference
730	Uniform title heading
740	Title traced differently
710	Name not capable of authorship

Note that the first four categories are categories common to other types of entries and are to be tagged, formatted, delimited and subfield coded according to the instructions in the section "Main entries." Substitute a "7" as the first digit of the numeric tag. When a record contains more than one added entry, use a separate tag for each entry.

1. Tags. Write the tag in front of each added entry.

   a. Personal names (700). This category includes:

      1) Names of actual persons, capable of authorship.

      2) Titles of books entered under personal author.

         70011 Gide, André Paul Guillaume, ǂd 1869-1951.
         ǂt Prometheus misbound.

   b. Corporate names (710,711). This category includes:

      1) Names of organized bodies, established under their own names or under the political jurisdiction in which they are located or of which they are

a part. Political jurisdictions standing alone are included in this category.

2) Names of entities such as ships, which are sometimes used as author headings.

3) Titles of books or serials entered under corporate author.

71021 Fertilizer Corporation of India, ltd. ǂb Planning and Development Division. ǂt Quarterly Bulletin. Supplement

4) Names not capable of authorship (see A.1.e below).

c. Uniform title headings (730). This category also includes all titles of works entered under title such as "The Atlantic."

d. Title added entries.

1) Traced the same. A title added entry which takes the same form as the short title is represented in the tracing by the word "Title." When the title added entry is the same as the short title, it will not exist as a separate field in the machine-readable record, but there will be an indicator for the title statement which may be used to generate automatically a title added entry and the word "Title." and its appropriate numbering in the tracing.

2) Traced differently. Tag a title added entry which takes a form different from that of the short title 740. Such added entry tracings consist of the word "Title:" followed by data. The word "Title:" and its appropriate numbering will be generated automatically by the computer on output.

e. Names not capable of authorship (710). This category refers to names used as added entries under the provisions of AACR 33L. Treat such names as though they were corporate names, and use tag 710.

71021 Arthur Olaf Andersen Japanese Print Collection.

2. Indicators. Two indicators are used with each added entry: one to describe the form of name and one to identify the type of added entry (to facilitate the arrangement of a file).

a. First indicator--form of name.

1) Fields 700, 710, and 711. For these fields, select the indicator which describes the form of name according to the instructions in the section "Main entries."

2) Fields 730, and 740. Since no indicators describing form of name have been defined for these fields, the first indicator position is automatically set to a null condition by program. The null condition, which means that no "intelligence" is being carried in the indicator position, is represented graphically on the cathode ray tube screen as a blank.

b. Second indicator--type of added entry. A second indicator is used with each added entry to identify the type of added entry according to the following code:

Numeric indicator	
0	Alternative entry
1	Secondary entry
2	Analytical entry

The above three types of added entries have been defined in order to facilitate the arrangement of a file. Each type of added entry may be subfiled by a different data element.

1) Alternative entries: A "0" (zero) indicator will show that the added entry could be subfiled by title. Use this indicator when an added

entry is likely to be thought of as an author of the work. The following categories are typical:

(a) Most corporate added entries.

71010 U.S. ǂb Library of Congress.

(b) Personal added entries without designation of function.

71000 Kames, Henry Home, ǂc Lord, ǂd 1696-1782.

(c) "Joint author" and "joint compiler" added entries.

(d) "Supposed author," etc., added entries.

(e) Personal and corporate added entries with legal desginations (relators) such as "defendant."

(f) "Editor" and "compiler" added entries when the main entry is not a personal name.

2) Secondary entries: A "1" (one) indicator will show that the added entry could be subfiled by main entry. Use this indicator with all added entries not otherwise covered including the following:

(a) Nonanalytical title or author/title general secondary entries.

70011 Shakespeare, William, ǂd 1564-1616. ǂt Hamlet.

(b) Illustrators, translators, and arrangers.

(c) Editors, when main entry is a personal name.

3) Analytical entries. An analytical entry is an added entry made to show that the book in hand contains the text of the work represented by the analytical entry (added entry I in the following example):

May, Robert Lewis, 1905-
Rudolph the red-nosed reindeer, and Rudolph, the red-nosed reindeer, shines again [by] Robert L. May. Chicago, Follett Pub. Co. [1964]
63 p. col. illus. 30 cm.

I. May, Robert Lewis, 1905- Rudolph, the red-nosed reindeer, shines again. II. Title. III. Title: Rudolph, the red-nosed reindeer, shines again.

The purpose of the analytical entry indicator in the added entry tracing is to insure that the added entry, which represents an edition of a work, is filed with entries for other editions of the work ahead of general secondary added entries.

In the card catalogs maintained at the Library of Congress this arrangement is achieved by adding the publication date as part of the heading, but this is not printed as part of the tracings on the cards. Other additional filing information (such as original title, language) as well as a date may appear with an analytical added entry in the Library of Congress catalogs to facilitate filing.

Although such additional filing information is not printed as part of the tracing on LC cards, it does appear on MARC records. Early MARC policy was to put all this additional filing information in a single subfield "u" after the title which appears in subfield "t". Current policy is not to use subfield "u" but to consider all such information as part of the "t" subfield. Depending on when a particular record entered the MARC data base, records may be found which exemplify both policies. At present the MARC Development Office is working on more specific coding for such elements as date, original title, and language as they appear in analytical entries.

OCLC's policy is to print all subfields which appear in the MARC record, both in the tracing and in the heading to which the tracing refers. Whether the additional filing information was coded "u" or "t" will not affect the order in which it is printed.

In doing original cataloging the important thing to remember is that any information placed at the end of the title in an added entry identifies it as an analytical added entry and requires the use of a "2" indicator. Until the MARC Development Office specifies otherwise all this additional information should be placed in the "t" subfield.

Language names used as additional filing information should be written out in full with a period following the language named last. The last character of the field should be a punctuation mark, usually a period. The following examples illustrate these points, the first using a "u" subfield and the second placing similar information in the "t" subfield.

70012 Hegel, George Wilhelm Friedrich, ǂd 1770-1831. ǂt Who thinks abstractly? ǂu Wer denkt abstrakt? English. 1966.

70012 Hazlitt, William, ǂd 1778-1830. ǂt On the fear of death. French and English. 1966.

Analytical entries may also be made for works entered under title. The technique is the same as described above except that an "author" element is lacking and the entry is tagged as a uniform title heading.

7302 Acta Comitiorum. 1807.

Some analytical added entries contain language and date information that is an integral part of the heading. This information was never identified by subfield code "u". The use of language and date as an integral part of the heading is particularly common to records representing works of sacred literature (Bible, Koran, etc.), although it may on occasion be used with certain kinds of laws as well.

71022 Jews. ǂk Liturgy and ritual. Hagadah. English. 1969.

3. Subfield codes. Use the appropriate subfield codes according to the instructions in the section "Main entries." Use additional subfield codes as follows:

a. Field 710. Whenever a name not capable of authorship is of the type that is entered under place, subfield code "a" identifies the entry element, and subfield code "b" identifies the data element following the entry element. This treatment is analagous to that given corporate names entered under place. Since the data element identified by subfield code "a" occurs first, subfield code "a" should not be explicitly input; subfield code "b" should always be explicitly input following a delimiter at the appropriate place in the data.

71011	Berlin. ǂb Museum Dahlem.
71011	New York (City) ǂb Empire State Building.

b. Analytical added entries are followed by certain filing information. While early MARC policy was to identify this filing information by subfield code "u" it should now be considered an extension of the "t" subfield. See paragraph A.2.b.3) of this section.

SERIES ADDED ENTRIES TRACED DIFFERENTLY FROM FORM IN SERIES STATEMENT

Each series added entry is treated as a variable field and is tagged accordingly. A distinction is made between series added entries traced the same as in the series statement and those traced differently. This distinction is made because in a machine record the appropriate tracing and the appropriate series added entry can be generated from the series statement itself as long as the data in the series statement and the tracing are the same. (For the tagging of series statements, see the section "Variable field: Series statement.") It then becomes unnecessary to input the series tracing at all. However, if the series is traced in a form different from that in the series statement, the series added entry itself must be tagged and input. A further distinction is made between author/title series and title series. When a record contains more than one series added entry, use a separate tag for each entry.

A. AUTHOR/TITLE SERIES STATEMENTS. The series added entry is traced differently from the series statement.

Numeric tag	
800	Personal name/Title
810	Corporate name/Title
811	Meeting or conference name/Title

1. Construct the identification according to the instructions in the section "Main entries," substituting an "8" as the first digit of the numeric tag.

8101 (Mexico (City) ǂb Universidad Nacional.
ǂb Instituto de Investigaciones Históricas.
ǂt Serie de historia general, ǂv 5)

2. When the series is numbered, insert a delimiter and subfield code "v" between the number and the rest of the series (see example above).

B. TITLE SERIES. The series added entry is traced differently from the series statement.

1. Write the tag 840 in front of the series added entry.

840 (Developmental medicine and child neurology. Supplement ǂv no. 5)

2. Some series added entries may consist of two elements, in which the first element is itself a title (e.g., the name of a periodical or a monographic series) and the second element is an element related to or dependent upon the first element (e.g., a subseries).

(Series: Better homes and gardens. Holiday cookbook series, 6)

(Series: Élites et responsabilités. Journées d'études)

Treat this type of series added entry as a title series added entry, not as an author/title series added entry. Do not insert a delimiter and subfield code between the two elements.

840 (Better homes and gardens Holiday cookbook series, ǂ6)

840 (Élites et responsabilités. Journées d'études)

3. When the series is numbered, insert a delimiter and subfield code "v" between the number and the rest of the series (see example above).

APPENDIX I

Tag	Indicator		Data Element Identifier Preceded by a "Unit Separator."	Name
	1	2		
100				Personal name as main entry (Names may be established in conformity with the ALA or Anglo-American rules.)
	0			Forename only
	1			Single surname
	2			Multiple surname
	3			Name of family
		0		Main entry is not subject
		1		Main entry is subject
			a	Name
			b	Numeration
			c	Titles and other words associated with name
			d	Dates
			e	Relator
			k	Form subheading
			t	Title (of book)
110				Corporate name as main entry
	0			Surname (inverted)
	1			Place or place and name
	2			Name (direct order)
		0		Main entry is not subject
		1		Main entry is subject
			a	Name
			b	Each subordinate unit
			e	Relator
			k	Form subheading
			t	Title (of book)
111				Conference or meeting as main entry
	0			Surname (inverted)
	1			Place and name
	2			Name (direct order)
		0		Main entry is not subject
		1		Main entry is subject

			a	Name
			b	Number
			c	Place
			d	Date
			e	Subordinate unit in name
			g	Other information
			k	Form subheading
			t	Title (of book)
130				Uniform title heading as main entry
	b̸			Null condition in first indicator
		0		Main entry is not subject
		1		Main entry is subject
			a	Uniform title heading
			t	Title (of a book)
240				Uniform title
	0			Not printed on LC card
	1			Printed on LC card
			a	Uniform title
241				Romanized title
	0			Does not receive title added entry
	1			Receives title added entry
			a	Romanized title
245				Title statement
	0			No title added entry in this form
	1			Title added entry in this form
			a	Short title
			b	Remainder of title
			c	Transcription of remainder of title page up to next field
250				Edition statement
			a	Edition
			b	Additional information
260				Imprint
	0			Publisher is not main entry
	1			Publisher is main entry
			a	Place
			b	Publisher
			c	Date
300				Collation
			a	Pagination or volumes
			b	Illustration(s)
			c	Height
350				Bibliographic price
			a	Bibliographic price
400*				Series note--personal name
	0			Forename only
	1			Single surname
	2			Multiple surname
	3			Name of family

*Used only when series is traced in the same form.

Appendix I

		0		Author of series is not main entry
		1		Author of series is main entry
			a	Name
			b	Numeration
			c	Titles, other name-associated words
			d	Dates
			e	Relator
			k	Form subheading
			t	Title (of series)
			v	Volume or number
410*				Series note--corporate name
	0			Surname (inverted)
	1			Place or place and name
	2			Name (direct order)
		0		Author of series is not main entry
		1		Author of series is main entry
			a	Name
			b	Each subordinate unit
			e	Relator
			k	Form subheading
			t	Title (of series)
			v	Volume or number
411*				Series note--conference
	0			Surname (inverted)
	1			Place and name
	2			Name (direct order)
			a	Name
			b	Number
			c	Place
			d	Date
			e	Subordinate unit in name
			g	Other information
			k	Form subheading
			t	Title (of book)
			v	Volume or number
440*				Title
			a	Title
			v	Volume or number
490				Series untraced or traced differently
	0			Series not traced
	1			Series traced differently
			a	Series statement
500				General note
			a	General note
501				"Bound with" note
			a	"Bound with" note
502				Dissertation note
			a	Dissertation note
504				Bibliography note
			a	Bibliography note
505				Formatted contents note

*Used only when series is traced in the same form.

	0			"Complete" contents
	1			"Incomplete" contents
	2			Partial contents
			a	Contents note
520				Abstract or annotation
			a	Abstract or annotation
600				Personal name as subject added entry
	0			Forename only
	1			Single surname
	2			Multiple surname
	3			Name of family
		0		LC subject heading
		1		Subj. heading assigned for use in children's catalog
		2		NLM subject heading
		3		NAL subject heading
			a	Name
			b	Numeration
			c	Titles, other name-associated words
			d	Dates
			e	Relator
			k	Form subheading
			t	Title (of book)
			x	General subdivision
			y	Period subdivision
			z	Place subdivision
610				Corporate name as subject added entry
	0			Surname (inverted)
	1			Place or place and name
	2			Name (direct order)
		0		LC subject heading
		1		Subj. heading assigned for use in children's catalog
		2		NLM subject heading
		3		NAL subject heading
			a	Name
			b	Each subordinate unit
			e	Relator
			k	Form subheading
			t	Title (of book)
			x	General subdivision
			y	Period subdivision
			z	Place subdivision
611				Conference as subject added entry
	0			Surname (inverted)
	1			Place and name
	2			Name (direct order)

		0		LC subject heading
		1		Subj. heading assigned for use in children's catalog
		2		NLM subject heading
		3		NAL subject heading
			a	Name
			b	Number
			c	Place
			d	Date
			e	Subordinate unit in name
			g	Other information
			k	Form subheading
			t	Title (of book)
			x	General subdivision
			y	Period subdivision
			z	Place subdivision
630				Uniform title heading as subject added entry
	b̸			Null condition in first indicator
		0		LC subject heading
		1		Subj. heading assigned for use in children's catalog
		2		NLM subject heading
		3		NAL subject heading
			a	Uniform title heading
			t	Title (of book)
			x	General subdivision
			y	Period subdivision
			z	Place subdivision
650				Topical subject added entry
		0		LC subject heading
		1		Subj. heading, children's catalog
		2		NLM subject heading
		3		NAL subject heading
			a	Topical subject heading
			b	Name following place entry element
			x	General subdivision
			y	Period subdivision
			z	Place subdivision
651				Geographic name (not capable of authorship) as subject added entry
	0			Not entered under place
	1			Entered under place
		0		LC subject heading
		1		Subj. heading assigned for use in children's catalog
		2		NLM subject heading
		3		NAL subject heading

			a	Geographic name
			b	Geographic name following place entry element
			x	General subdivision
			y	Period subdivision
			z	Place subdivision
690				Local subject headings
	b̸			Reserved for user
		b̸		Reserved for user
			a	Subject heading
			x	General subdivision
			y	Period subdivision
			z	Place subdivision
700				Personal name as added entry
	0			Forename only
	1			Single surname
	2			Multiple surname
	3			Name of family
		0		Alternative entry
		1		Secondary entry
		2		Analytical entry
			a	Name
			b	Numeration
			c	Titles, other name-associated words
			d	Dates
			e	Relator
			k	Form subheading
			t	Title (of book)
			u	Non-printing filing information
710				Corporate name as added entry
	0			Surname (inverted)
	1			Place or place and name
	2			Name (direct order)
		0		Alternative entry
		1		Secondary entry
		2		Analytical entry
			a	Name
			b	Each subordinate unit
			e	Relator
			k	Form subheading
			t	Title (of book)
			u	Non-printing filing information
711				Conference as added entry
	0			Surname (inverted)
	1			Place and name
	2			Name (direct order)
		0		Alternative entry
		1		Secondary entry
		2		Analytical entry

			a	Name
			b	Number
			c	Place
			d	Date
			e	Subordinate unit in name
			g	Other information
			k	Form subheading
			t	Title (of book)
			u	Non-printing filing information
730				Uniform title heading as added entry
	ƀ			Null condition in first indicator
		0		Alternative entry
		1		Secondary entry
		2		Analytical entry
			a	Uniform title heading
			t	Title
			u	Non-printing filing information
740				Title traced differently from short title
	ƀ			Null condition in first indicator
		0		Alternative entry
		1		Secondary entry
		2		Analytical entry
			a	Title traced differently from short title
750				Name not capable of authorship
	0			Not entered under place
	1			Entered under place
		0		Alternative entry
		1		Secondary entry
		2		Analytical entry
			a	Name or place entry element
			b	Name following place entry element
800*				Personal name-title series added entry
810*				Corporate name-title series added entry
811*				Conference-title series added entry
840*				Title series added entry

*Tags in the 800's are used for series added entries traced differently from the series statement. With the exception that no second indicators are used in the 800's, the indicators and data element identifiers are the same as those used with the 400's.

IV

7 June 1971

CATALOGING ON A CATHODE RAY TUBE TERMINAL

Ohio College Library Center

June 1971

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PREFACE

This manual describes operation of the Irascope terminal used in the Ohio College Library Center's computerized, on-line shared cataloging system. The manual is intended for use as a reference tool by a cataloger after he or she has received instruction in use of the terminal.

Neither the manual nor instruction can cover all possible events and their interreactions. However, it is expected that after a few weeks of experience, a cataloger will only occasionally need to refer to this publication. Nevertheless, there may be times during those early weeks when a cataloger may be engulfed in paralyzing bafflement unrelieved by previous instruction or this manual. Before this state becomes catatonic, call the Center for relief.

The Ohio College Library Center is grateful to the Library of Congress and the American Library Association for permission to reprint Appendix II from Books: A MARC Format and for permission to include in Appendix I excerpts from a table entitled "Extended 8-bit ASCII Character Set for MARC II Format" in the same publication.

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INTRODUCTION

The principal objective of the Ohio College Library Center is to increase availability of library resources for use in educational and research programs of Ohio colleges and universities. The principal economic goal of the Center is to lower the rate of rise of per-student library costs while increasing availability of library resources.

The on-line shared cataloging system for which this manual has been prepared will supply on cathode ray tube terminals in each institution's library union catalog information, information as to availability of specific items in other member libraries, information concerning holdings of neighboring libraries to be used in book selection and avoidance of unnecessary duplication, bibliographical information to be used in ordering, and bibliographic information to be used in cataloging. In addition, the system will furnish to each member library catalog cards in final form arranged for filing in individual packs to go into specific catalogs. The Manual for OCLC Catalog Card Production (February 1971) describes the many options available to Members for the formating of catalog cards for their individual catalogs.

A major procedural goal of the on-line cataloging system is to furnish cataloging personnel in individual libraries with bibliographic information when and where they need it. It is intended that when a book leaves the terminal, bibliographic cataloging will be complete as well as physical processing except for affixing spine labels and labels for book cards and book pockets.

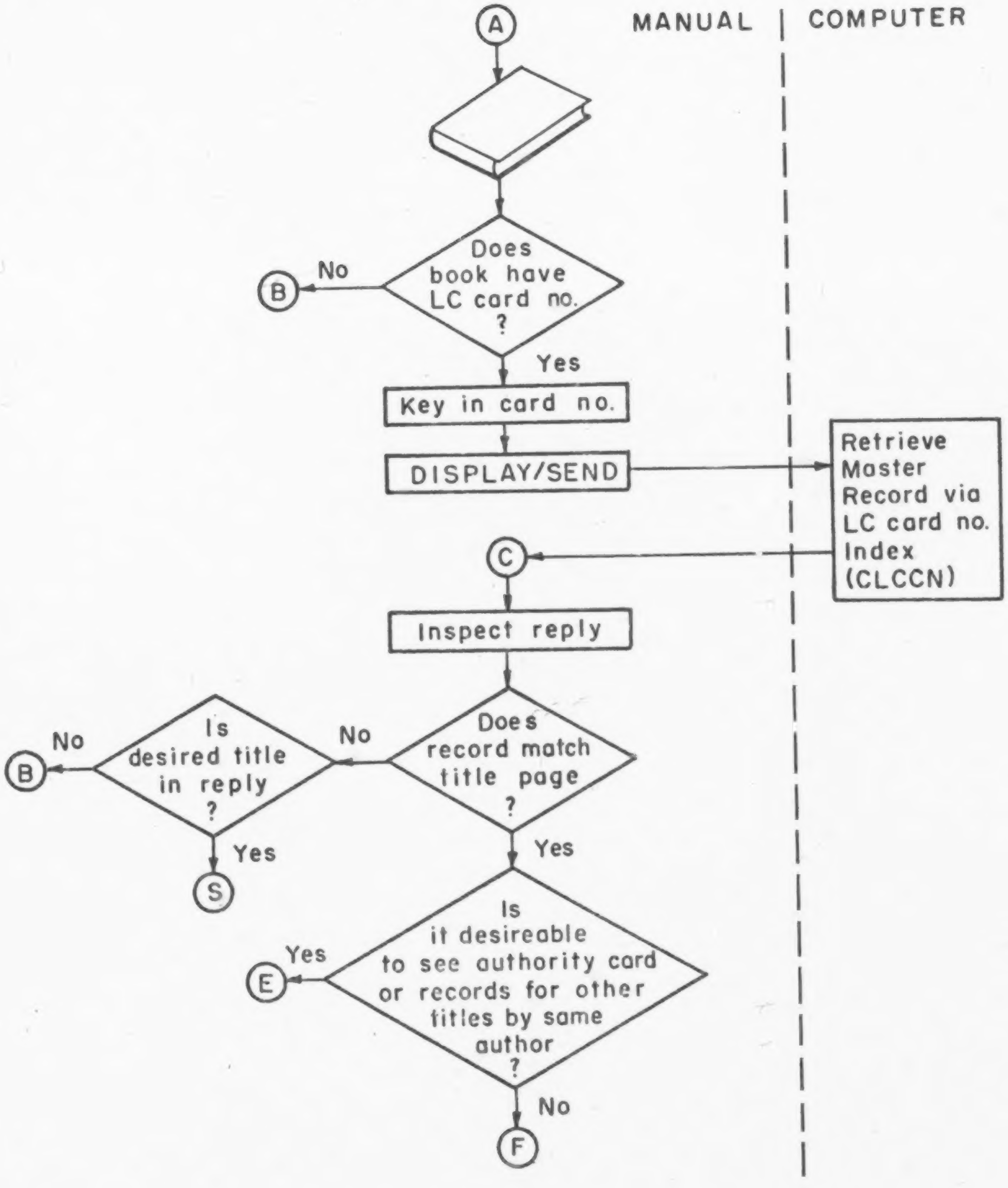
A major economic objective is to reduce cataloging costs to member libraries by taking advantage of cataloging performed elsewhere and thereby eliminating duplicate effort. Employment of labor saving machines will of itself further reduce costs.

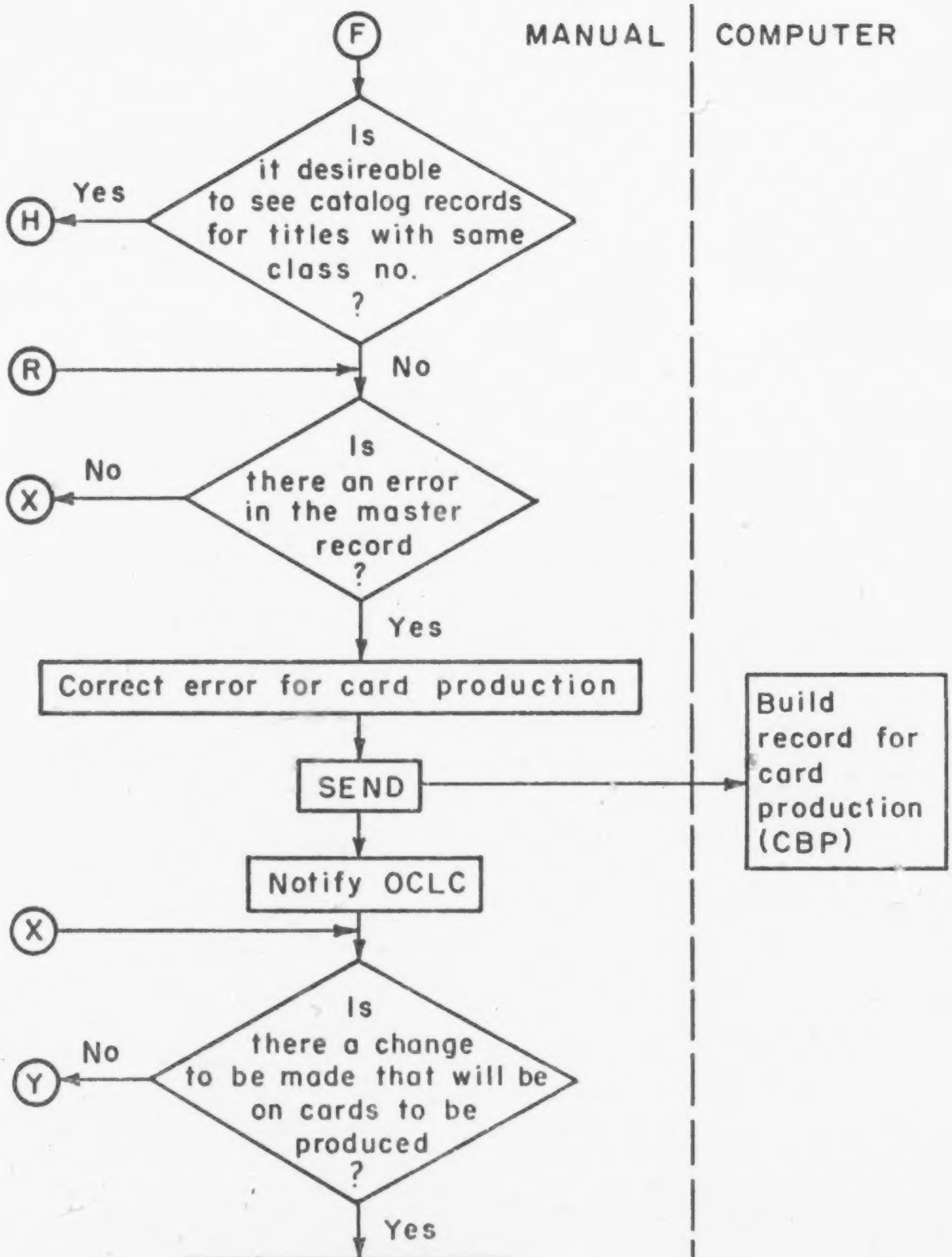
Each individual library will have its own design for flow of work and cataloging on a cathode ray tube (CRT) terminal, and these work flows will vary in procedural detail from library to library. Use of the OCLC system will vary from a library that mimics LC bibliographic data and LC call number to a library employing Dewey classification that would not only alter the Dewey class number but also add a book number.

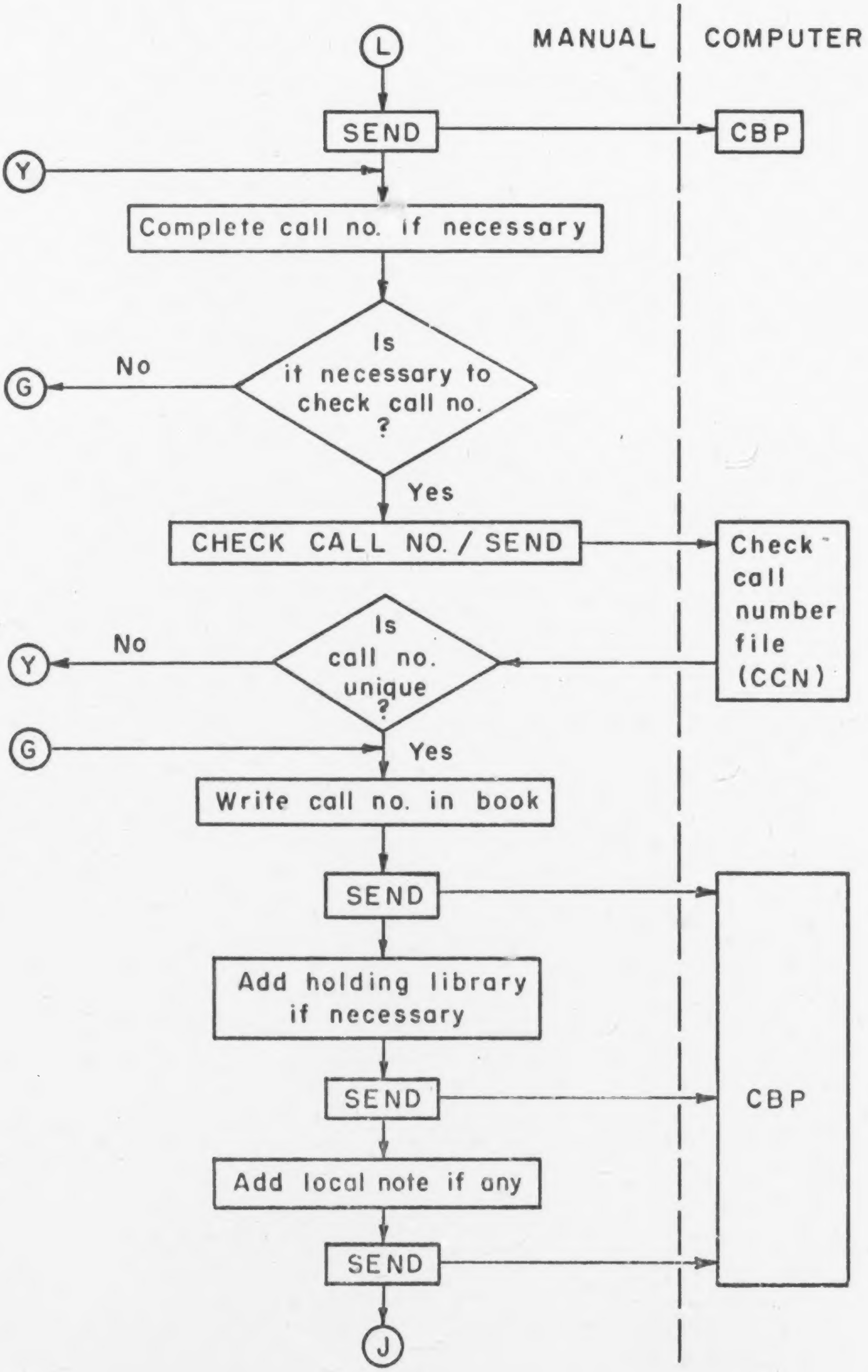
The position of the terminal in a work flow diagram should be the same location as that where the writing of LC card numbers on punch cards occurs in use of the off-line catalog production system. Work flow diagrams will change for some libraries, particularly for those libraries that search for bibliographic cataloging information in addition to verifying a title to avoid duplication at time of ordering. Moreover, as the on-line data base expands in size and utility, it is quite likely that further changes will be invoked in work flows.

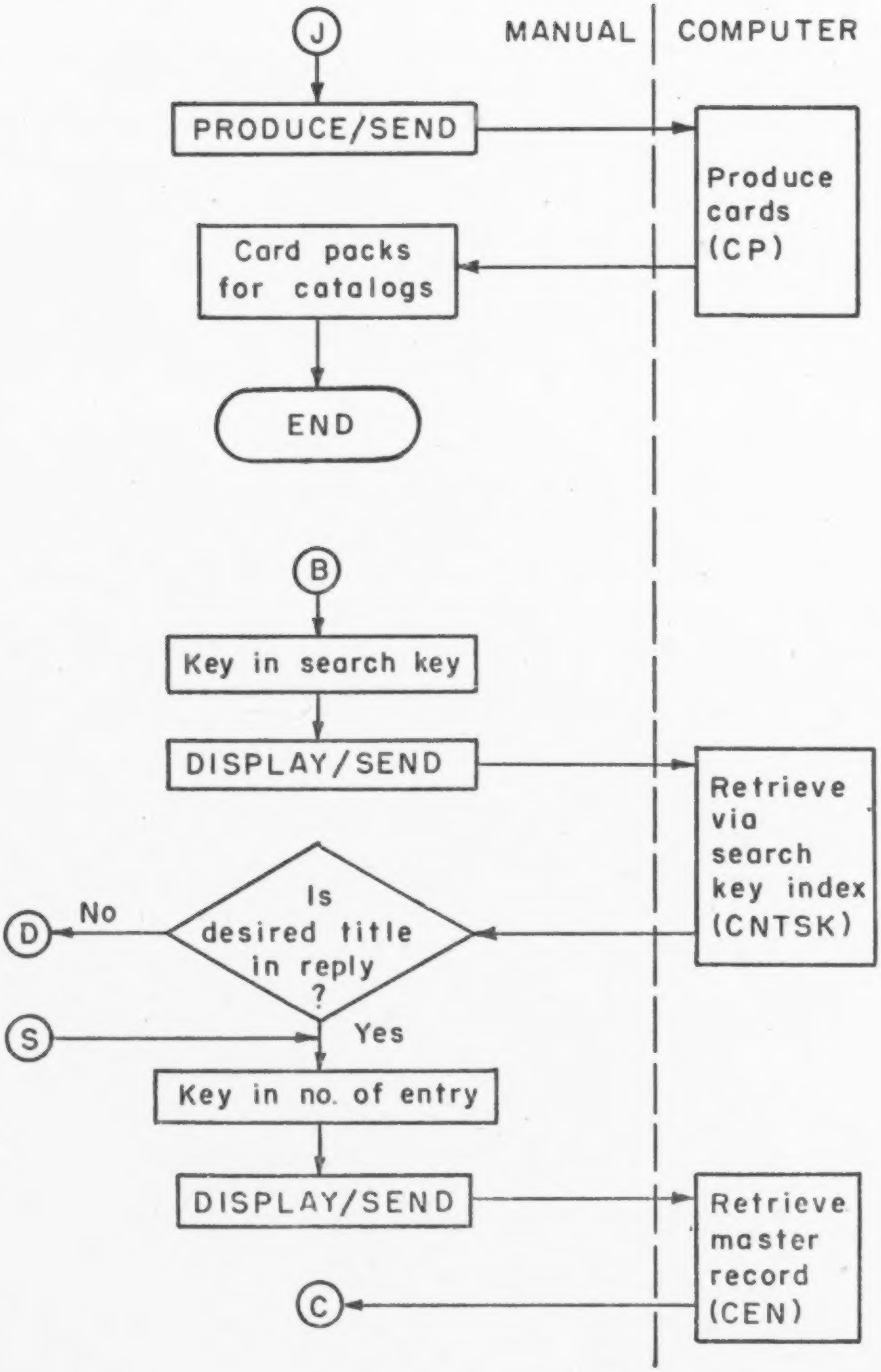
The following four sections of this manual describe operation of the terminal, techniques for searching for bibliographic information, cataloging using bibliographic data obtained from the system, and input cataloging for inserting into the system. Figure 1 is a flow chart that depicts activity at the CRT. Details for the manipulation of bibliographic data are to be found in the manual entitled Creation of Machine-Readable Catalog Entries; an Adaptation of the "Data Preparation Manual: MARC Editors" (May 1971).

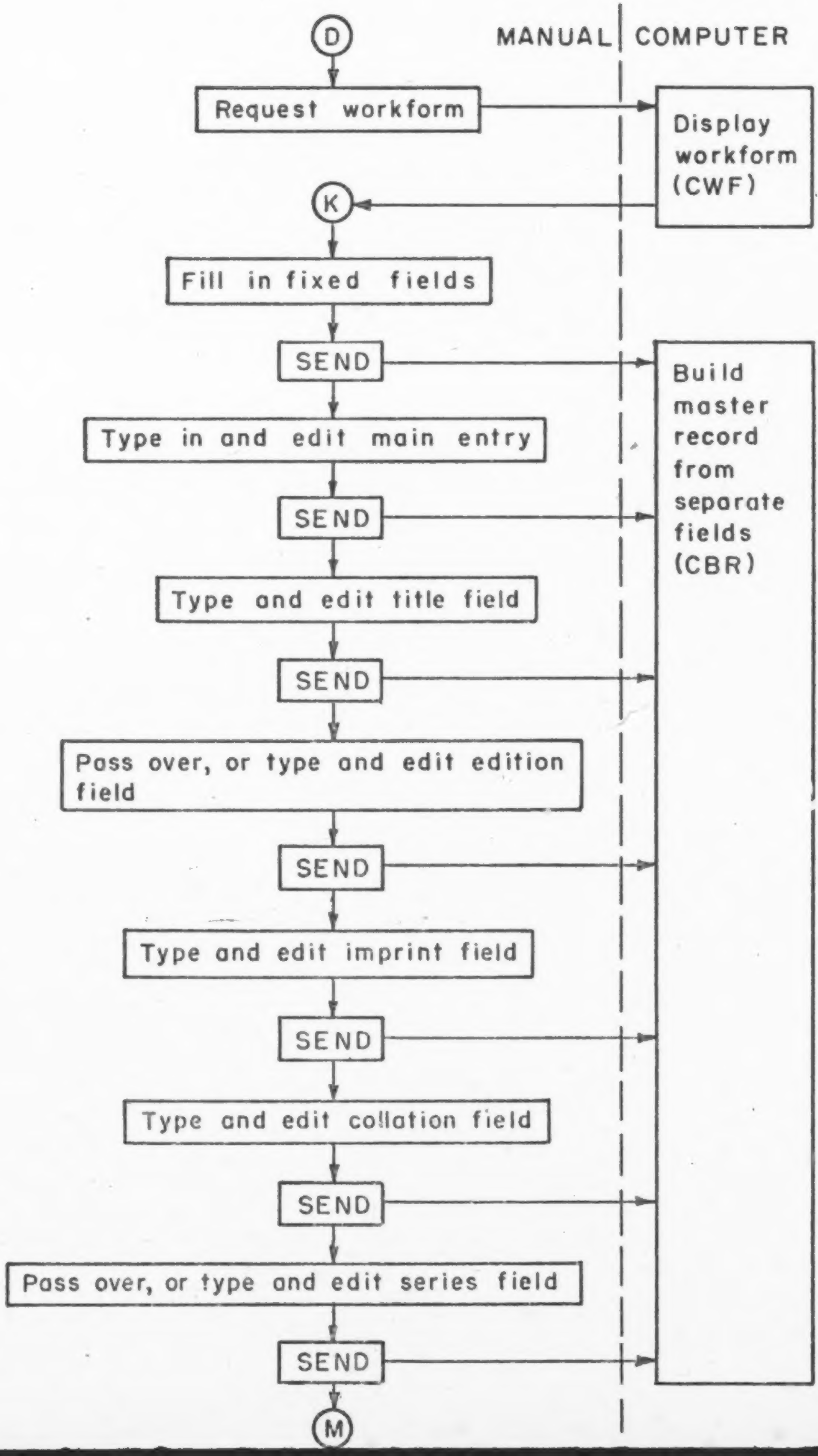
FIGURE 1. General Flowchart — On-line Cataloging System, 15 May, 1971

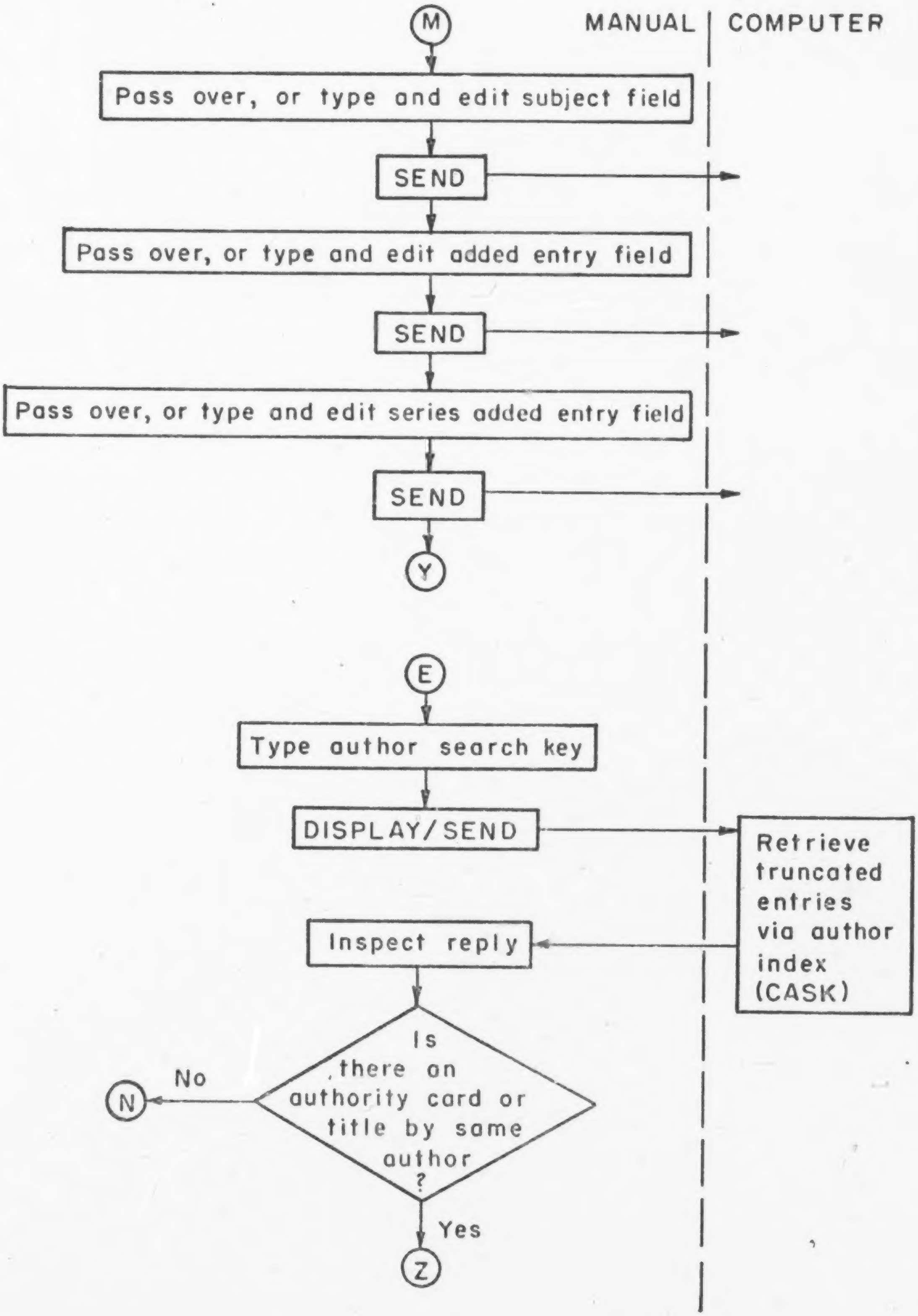

A
MANUAL
COMPUTER
Does book have LC card no. ?
No
B
Yes
Key in card no.
DISPLAY/SEND
Retrieve Master Record via LC card no. Index (CLCCN)
C
Inspect reply
Does record match title page ?
No
Is desired title in reply ?
No
B
Yes
S
Yes
Is it desireable to see authority card or records for other titles by same author ?
Yes
E
No
F

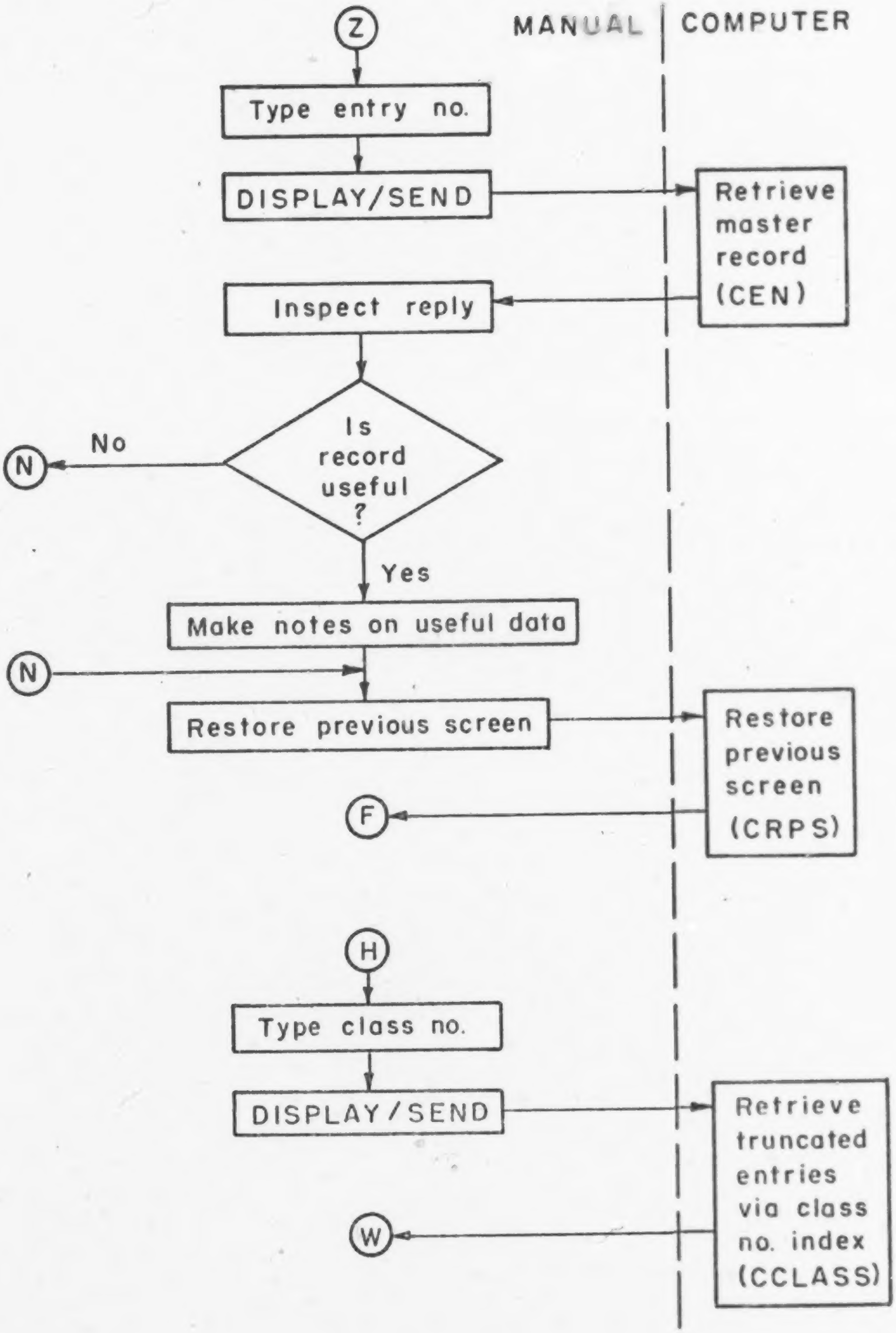

MANUAL
COMPUTER
F
Is it desireable to see catalog records for titles with same class no. ?
Yes
H
R
No
Is there an error in the master record ?
No
X
Yes
Correct error for card production
SEND
Build record for card production (CBP)
Notify OCLC
X
Is there a change to be made that will be on cards to be produced ?
No
Y
Yes
Insert or delete
L

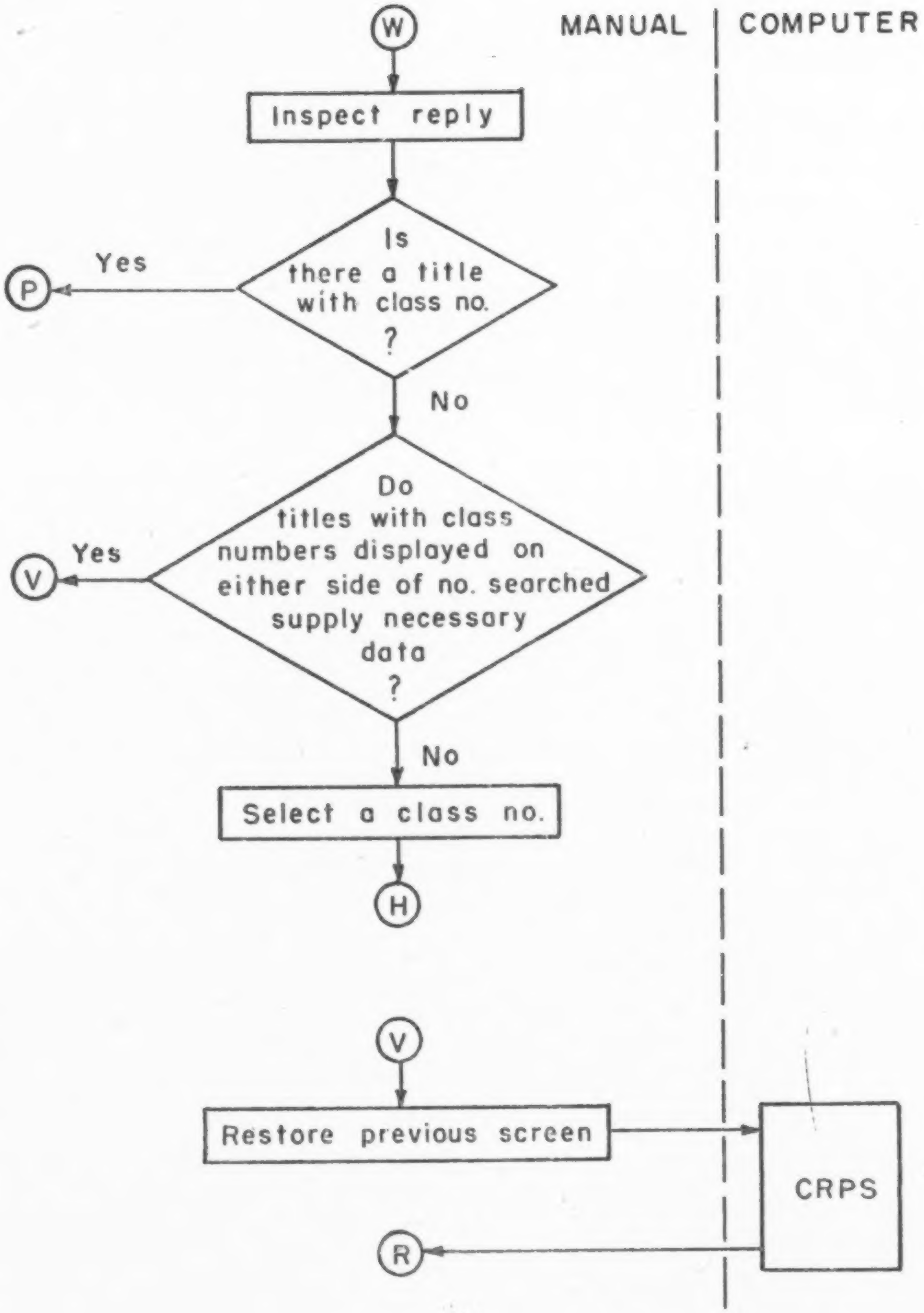

MANUAL
COMPUTER
L
SEND
CBP
Y
Complete call no. if necessary
Is it necessary to check call no. ?
No
G
Yes
CHECK CALL NO. / SEND
Check call number file (CCN)
Is call no. unique ?
No
Y
G
Yes
Write call no. in book
SEND
Add holding library if necessary
SEND
CBP
Add local note if any
SEND
J

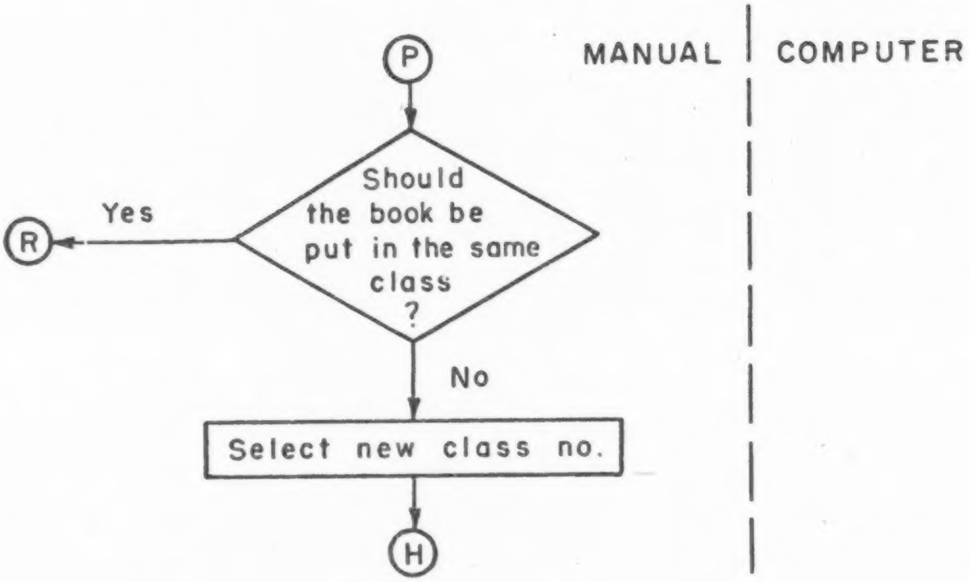

J
MANUAL
COMPUTER
PRODUCE/SEND
Produce cards (CP)
Card packs for catalogs
END
B
Key in search key
DISPLAY/SEND
Retrieve via search key index (CNTSK)
Is desired title in reply ?
No
D
Yes
S
Key in no. of entry
DISPLAY/SEND
Retrieve master record (CEN)
C


D
MANUAL
COMPUTER
Request workform
Display workform (CWF)
K
Fill in fixed fields
SEND
Build master record from separate fields (CBR)
Type in and edit main entry
SEND
Type and edit title field
SEND
Pass over, or type and edit edition field
SEND
Type and edit imprint field
SEND
Type and edit collation field
SEND
Pass over, or type and edit series field
SEND
M


M
MANUAL
COMPUTER
Pass over, or type and edit subject field
SEND
Pass over, or type and edit added entry field
SEND
Pass over, or type and edit series added entry field
SEND
Y
E
Type author search key
DISPLAY/SEND
Retrieve truncated entries via author index (CASK)
Inspect reply
Is there an authority card or title by same author ?
No
N
Yes
Z


MANUAL
COMPUTER
Z
Type entry no.
DISPLAY/SEND
Retrieve master record (CEN)
Inspect reply
Is record useful ?
No
N
Yes
Make notes on useful data
N
Restore previous screen
Restore previous screen (CRPS)
F
H
Type class no.
DISPLAY/SEND
Retrieve truncated entries via class no. index (CCLASS)
W


MANUAL
COMPUTER
W
Inspect reply
Is there a title with class no. ?
Yes
P
No
Do titles with class numbers displayed on either side of no. searched supply necessary data ?
Yes
V
No
Select a class no.
H
V
Restore previous screen
CRPS
R


MANUAL
COMPUTER
P
Should the book be put in the same class ?
Yes
R
No
Select new class no.
H

Text of commands to be communicated to the computer are printed in upper case in this manual to avoid possible ambiguity. For example "END" is used as the command a cataloger employs to instruct the computer that he has ceased to operate the terminal, but the computer will also recognize "end".

OPERATION OF TERMINAL

A cathode ray tube terminal is a small satellite computer that possesses a memory and logic circuits for manipulating alphanumeric characters. Outwardly it appears as having a screen not unlike that on a television set (Figure 2) and a keyboard that resembles that of a typewriter (Figure 3). When the terminal is turned on, there is a blinking cursor consisting of a blinking vertical line that appears in the upper left-hand corner of the screen. Whenever a key on the keyboard is depressed the corresponding character appears in the position occupied by the cursor. The cursor then moves one position to the right or to the start of the next line in the event that depression of the key occurred when the cursor occupied the last position in a line.

The central computer can also communicate with a CRT terminal and place information in its memory to be displayed on the screen.

Cathode ray tube terminals are solidly built but are not indestructible. Ordinary usage, such as that given a typewriter, will do no damage to the terminal. However, if one pushed the terminal off a desk onto the floor, the effect on it would be the same as would be achieved if one pushed a portable television off a desk onto the floor. It would be wrecked.

The terminal is turned on by rotating the knob below the lower right-hand corner of the screen (Figure 2) in a clockwise direction for about 180 degrees. Soon the cursor will appear blinking in the upper left-hand corner of the screen. Next the brilliancy of the characters may be adjusted by rotating the knob in either a clockwise or counter-clockwise direction.

To the right of the screen is a column of three yellow indicator lamps bearing captions INSERT MODE, MSG WAIT and KBD LOCK. The significance of the top and bottom lamps is explained in subsequent sections of this manual. The middle lamp (MSG WAIT - message waiting) illuminates when the computer has a special message to communicate to the terminal. To receive the message the cataloger should return the cursor to the home position if it is not already at home, type MSG, depress the key labeled DISPLAY REC'D and then SEND. The computer will display the message on the screen. The computer will hold the message until the cataloger indicates as described above that it is convenient to receive the message; a waiting message will in no way interfere with normal cataloging activity on the terminal.

Logging In

After having turned on the CRT, or whenever a cataloger first begins to use a CRT, he should log in. If someone else has left text on the screen of the CRT, the screen should be cleared by simultaneously depressing the keys labeled CONTROL and CLEAR PAGE. This action will erase data on the screen and will return the cursor to the home position, which is in the upper left-hand corner

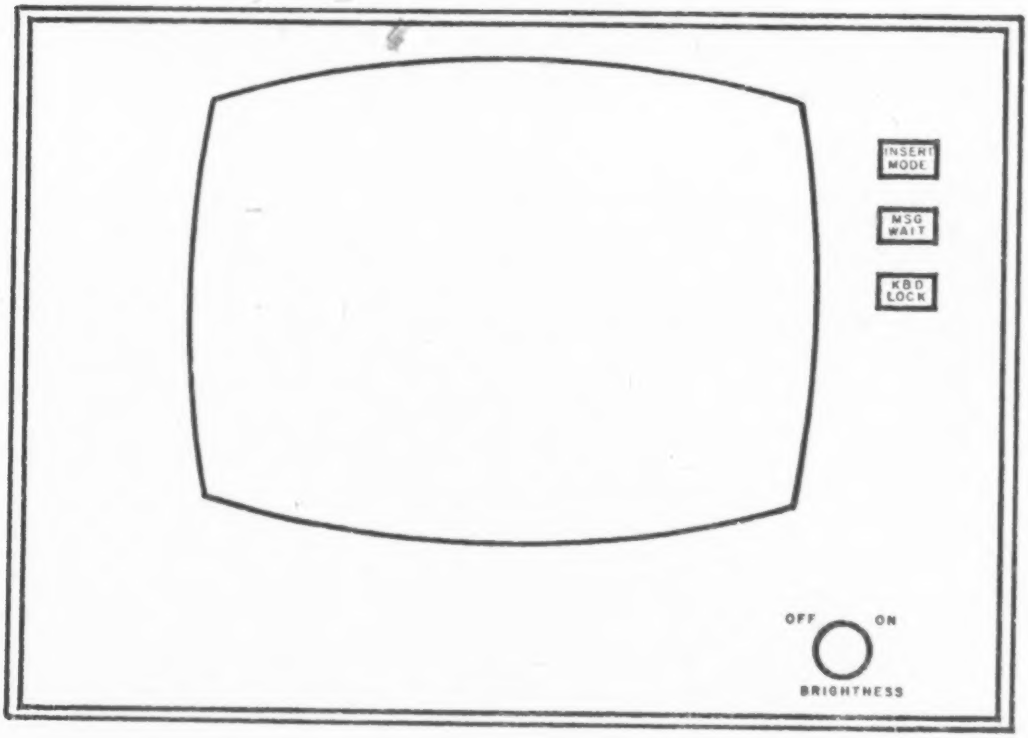
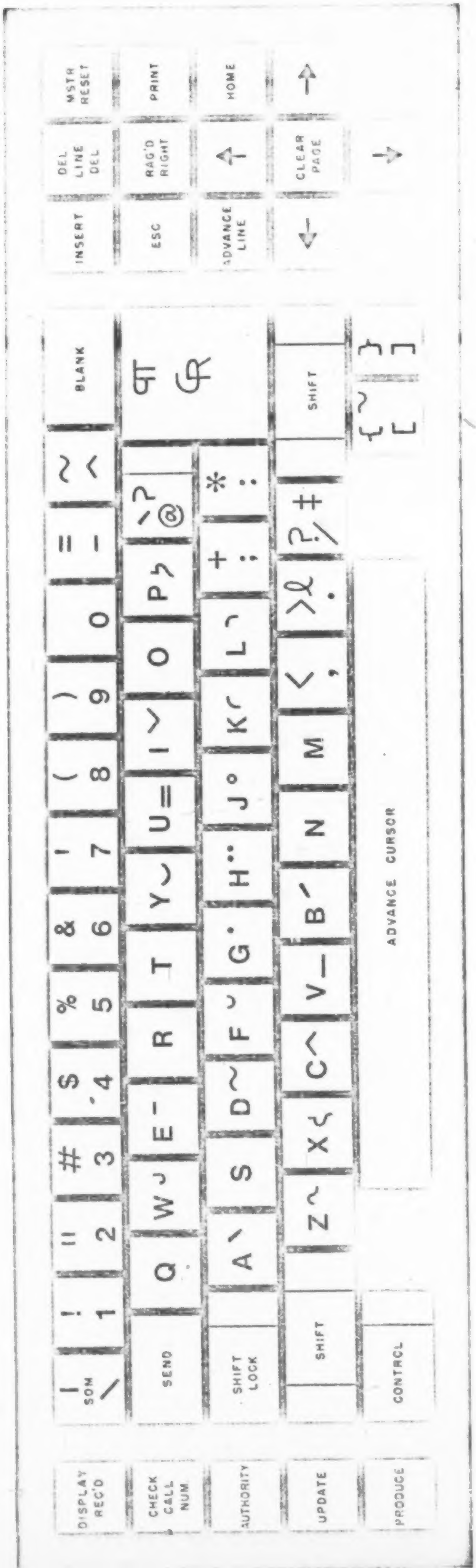

INSERT MODE
MSG WAIT
KBD LOCK
OFF
ON
BRIGHTNESS

FIGURE 2. Irascope Terminal


DISPLAY REC'D
CHECK CALL NUM
AUTHORITY
UPDATE
PRODUCE
SOM
SEND
SHIFT LOCK
SHIFT
CONTROL
! 1
" 2
# 3
$ 4
% 5
& 6
' 7
(8
) 9
0
= -
~ ^
BLANK
Q W E R T Y U I O P
A S D F G H J K L
Z X C V B N M
< ,
> .
? /
+ ;
* :
@
SHIFT
ADVANCE CURSOR
{ [
}]
INSERT
DEL LINE DEL
MSTR RESET
ESC
RAG'D RIGHT
PRINT
ADVANCE LINE
HOME
CLEAR PAGE

of the screen. If there is no text on the screen but the cursor is not in the home position, it can be returned to home by depressing the key labeled HOME.

The cursor should always be returned to the home position before a request is typed to be sent to the computer.

To continue the process of logging in, the cataloger should next type his or her Social Security number including the dashes (i. e., 023-16-3272) and depress the key labeled SEND. The computer will now acknowledge that the cataloger has been identified. Catalogers will be qualified either to make full use of the system including production of catalog cards or to make partial use of the system not involving production of catalog cards. Partial authorization will be provided for those individuals whose cataloging must be revised before cards are to be produced and holdings information and input cataloging are to be entered into the system. The cataloger need enter his or her Social Security number only at the beginning of the period when the cataloger will be using the terminal. When the cataloger ceases to use the terminal, the screen should be cleared or the cursor returned to home if the screen is already clear, END should be typed and SEND depressed. Such action will prevent another person from using the terminal until he has identified himself to the system.

Keyboard

The keyboard consists of a standard typewriter keyboard plus many additional characters and a variety of special function keys (Figure 3). The five function keys, most of which are at the right end of the keyboard, are employed to communicate with the terminal and to edit text on the screen.

SOM: The left-most column in the main bank of keys contains three function keys: SOM, SEND and CONTROL. SOM stands for "Start of Message". The start-of-message character is a triangle (▷) and must always be at the beginning of any message or string of text to be communicated to the computer. There is a permanent start-of-message character at the beginning of the first line, but it is not displayed on the screen. The start-of-message character can be inserted into the memory of the terminal and therefore onto the screen by simultaneously depressing the CONTROL key and the SOM key. Any text then inserted between the start-of-message character and the cursor will be transmitted to the computer when the SEND key is depressed.

SEND: When the SEND key is depressed an internal flag is set that indicates to the computer that the terminal has data to be transmitted. The computer will then instruct the terminal to transmit the data and will acknowledge to the terminal when the data has been received successfully. As soon as the SEND key is depressed, a yellow indicator lamp to the right of the screen bearing the caption KBD LOCK (Figure 2) will illuminate and will remain lit until the computer acknowledges successul receipt of the transmission. During the period that the keyboard is locked, it is impossible to operate the keyboard.

CONTROL: The CONTROL key is a safety device to prevent loss of data by accidentally depressing SOM, MSTR RESET or CLEAR PAGE. Accidental insertion of the start-of-message character could lead to loss of data in transmission in that not all data intended for transmission would be transmitted. Similarly, accidental depression of MSTR RESET and CLEAR PAGE could cause loss of data from the memory of the CRT terminal.

INSERT: At the right-hand end of the keyboard there are thirteen function keys. The first key in the top row labeled INSERT puts the terminal into insert mode when it is depressed. All other keys then produce the same action when depressed while the terminal is in insert mode as in normal mode except for the space bar at the bottom of the keyboard. In normal mode, this space bar operates exactly like the space bar on a typewriter. That is to say, it advances the cursor without having any effect on the text already typed onto the screen. However, in insert mode the space bar always inserts a blank and moves existing text one position to the right. To advance the cursor without altering text when the terminal is in insert mode, the third key in the fourth row from the top, bearing the arrow pointing to the right, should be depressed.

When INSERT is depressed, the topmost of the three indicator lamps to the right of the screen (Figure 2) will illuminate with the caption INSERT MODE. If the cursor is not already in the position where the insertion is to be made, it should be moved to that position using the cursor-move keys in the third, fourth and fifth rows of function keys. After the cursor has been positioned, the cataloger can then type in text that is to be inserted. Text already on the screen will move to the right and upon reaching the end of the line will move down to the next line as the terminal opens up that line to receive text. When the insertion is complete, the INSERT key should be depressed again to return the terminal to normal mode.

DELETION: To delete a character, place the cursor on the unwanted character and depress the key labeled DEL PARA DEL. The delete key DEL will cause the character at the cursor position to be deleted and will move all text to the right of the cursor in that line one position to the left, providing that a carriage-return (⊢) or paragraph mark terminates the line. If the delete key is held down, the delete operation repeats until all of the text on the line has been erased. If the delete key is still kept depressed, the text on the next line is moved up with the first character position at the cursor location and the delete operation continues as long as the delete key is held down.

When the delete paragraph function DEL PARA is activated by first depressing the ESC key and then the DEL PARA key, all characters up to a maximum of 256 from the cursor position to, but not including, the next following paragraph-mark character are deleted. The paragraph-mark character will appear at the cursor position.

MSTR RESET: The third key in the top row is labeled MSTR RESET, which stands for "Master Reset". Simultaneous depression of the CONTROL key with this key will initiate the display, restore the keyboard, and return the cursor to the home position. This function does not clear the display memory, so that text in the memory will not be lost. In general, whenever the terminal does not respond to any action for a protracted period of time, such as a minute, it should be reinitiated by employing MSTR RESET.

ESC: The first key in the second row of the right-hand group of function keys is labeled ESC, which stands for "Escape". By depressing and releasing this key and then a keyboard key, the character at the right on a keyboard key will be inserted into the memory and displayed on the screen.

RAGGED RIGHT: The second key in the second row is labeled RAG'D RIGHT, which stands for "Ragged Right", a printer's term. When typing on the screen, one can type continuously and the line of text will drop down to the next line whenever a line has been filled. When one reaches the end of a paragraph or field, the paragraph mark should be inserted. Then the cursor should be moved upward to a position in the first line of the paragraph or field and to the left of the rightmost blank space in the line. When the ragged-right key is depressed, the screen will be rearranged so that each line is filled as fully as possible with complete words only. Therefore, a cataloger only types a hyphen when it is to appear on the catalog card irrespective of its position in a line. A hyphen should never be used to divide a word at the end of a line.

PRINT: If a terminal has the optional printer attached to it, depression of the PRINT key will cause the text on the screen to be typed out on the typewriter.

ADVANCE LINE: The first key in the third row of right-hand function keys is ADVANCE LINE. When this key is depressed, the cursor advances to the first character position of the following line.

HOME: The third key is labeled HOME. Depression of this key returns the cursor to the first character position of the first line - the home position.

CLEAR PAGE: The second key in the fourth line is labeled CLEAR PAGE. This function can be activated only by simultaneous depression of the CLEAR PAGE key and the CONTROL key. This action erases the text on the screen and in the memory. It should be used only when the data on the screen is no longer needed.

MOVE CURSOR: The second key in the third row bears an arrow pointing up. On the depression of this key, the cursor will move to the corresponding character position in the line above. If the key is kept depressed, the cursor will continue to move upward, but if the cursor is on the top line, it will remain on the top line except that line roll may occur (See Line Roll).

The first key in the fourth line has an arrow pointing to the left. If the key is kept depressed, the cursor will continue to move to the left, and its movement will terminate when it reaches the first character position of the line.

The third key on the third line carries an arrow pointing to the right. In normal mode this key and the space bar have the same function. Momentary depression of the key moves the cursor one position to the right. If the key is held down, the cursor will continue to move to the end of the line and then to the first position on the following line. In insert mode, this key has the same function.

The bottom key in the right-hand group of function keys has an arrow pointing down. Depression of this key will cause the cursor to move to the corresponding character position on the line below. If the cursor is held down it will move continuously down to the bottom line. If the cursor is on the last line, it will remain on the last line, except that Line Roll may occur (see Line Roll).

Line Roll

Line Roll is the mechanism that provides access to that portion of the memory remaining undisplayed on the screen after 32 partially filled lines of characters have been displayed. If a carriage-return or paragraph mark is entered on the 32nd or bottom line of the display and the move-cursor-down key depressed, all lines will move up, leaving the cursor on the bottom line. The original 32nd line will now be the 31st line, and the 31st line will be the 30th line, and so forth. The first line will disappear from the display screen, but will remain in the memory. The bottom line on the screen is now available for data entry. This process will repeat until no memory remains undisplayed.

If the cursor is on the first line and a cursor-up command is given, the line preceding the first displayed line will return to the display screen in the first line position; all subsequent lines will move down one line. The bottom line will disappear from the display screen, but will remain in memory. This process will repeat until the beginning of the memory is displayed at the top of the display screen.

Depression of the HOME key will return the cursor to the home position and thereby put the first line of memory on the first line of the display screen. All subsequent lines will be repositioned accordingly.

Extended Library Character Sets

The fourth edition of *Books: a MARC Format* describes three "extended library character sets": the Greek set, the subscript set and the superscript set. OCLC will accept characters from these sets and any other sets that may be established by the Library of Congress for its MARC formats. These characters will be maintained on the data base and displayed for users of the records containing the characters. However, currently OCLC has no means available for printing the characters contained in these extended character sets. Therefore, whenever printed material is made from a record containing one of these characters, an opening will be left in the text for the character, but nothing will be printed therein. It is recommended, therefore, that the cataloger spell out any symbol that is not included in the standard character set described in Appendix I.

The change from one character set to another is signaled by a broken vertical bar, ¦ , produced by depressing SHIFT and then SOM. The character that immediately follows the vertical bar signals which character set is desired: "s" for standard, "g" for Greek, "b" for subscript and "p" for superscript. Once a character set has been entered, all subsequent characters input will be treated as members of that character set. For example, if the cataloger wishes to enter α^2 into the system, the character sequence "¦ga¦p2¦s" would be used, the "¦s" signaling return to the standard character set.

Greek Character Set

After the Greek character set mode has been invoked by keying "¦g", Greek characters can be entered into the bibliographic record as follows:

Character	Name	Displayed as	Keyed as
	Alpha	a	a
	Beta	b	b
	Gamma	c	c

Subscript Character Set

When the subscript character set mode has been signaled by keying "¦b", the following characters can be entered:

Character	Name	Displayed as	Keyed as
0	Subscript 0	0	0
1	Subscript 1	1	1
2	Subscript 2	2	2
3	Subscript 3	3	3
4	Subscript 4	4	4
5	Subscript 5	5	5
6	Subscript 6	6	6
7	Subscript 7	7	7
8	Subscript 8	8	8
9	Subscript 9	9	9
(	Subscript Open Paren	(	(
)	Subscript Close Paren	)	)
+	Subscript Plus	+	+
-	Subscript Minus	-	-

Superscript Character Set

When the superscript character set mode has been entered by keying "¦p", characters of the superscript character set corresponding to the above list of subscript characters may be entered into the bibliographic record.

SEARCHING

Although it would be possible to obtain a bibliographic record from the central file for display on a CRT screen by employing a call number, searching for bibliographic information will undoubtedly be done entirely by use of LC card numbers and search keys when LC card numbers are lacking.

LC Card Number

The first action of a cataloger at a CRT is to check the verso of the title page of the book to be cataloged to obtain the LC card number. If an LC card number is not on the verso, the search should then be performed using the search key.

Before typing the LC card number onto the screen, the cataloger should clear the screen by simultaneously depressing CONTROL and CLEAR PAGE. Type the LC card number onto the screen, depress the key labeled DISPLAY REC'D, then depress the key labeled SEND. If the bibliographic record bearing the call number typed on the screen is in the master file, it will be displayed on the screen as illustrated in Figure 4.

Compare the bibliographic description on the screen with the title page. If the description is for the book at hand, or if the description varies only in minor detail such as imprint date, cataloging proceeds as described in the

```
(Cursor at home position)

Card No:  78-113725
ISBN:
Cat Source:  LC
¶
 ▷   050 1     HE7781 ǂb  .M3 ¶
¶
▷ 1 100 10   Mathison, Stuart L. ¶
▷ 2 245 10   Computers and telecommunications; ǂb issues in public policy ǂc
(by) Stuart L. Mathison (and) Philip M. Walker. ¶
▷ 3 260 0    Englewood Cliffs, N.J., ǂb Prentice-Hall ǂc (1970)
¶
▷ 4 300      xviii, 270 p. ǂc 25 cm.
▷ 5 490 0    Prentice-Hall series in automatic computation  ¶
▷ 6 504      Bibliography: p. 244-260.  ¶
▷ 7 650 0    Telecommunication ǂz U.S.  ¶
▷ 8 650 0    Electronic data processing ǂx Telecommunications.  ¶
▷ 9 700 11   Walker, Philip M., ǂe joint author. ¶
¶
▷10 090      ǂb ¶
▷11 049 --   ¶
```

Figure 4: Master record on screen for a library using LC classification.

subsequent section entitled CATALOGING WITH EXISTING BIBLIOGRAPHIC INFORMATION. If the description does not match the title page, the search should then be carried out using the search key described under Search Keys, the next subheading of this section.

Infrequently, two or more truncated bibliographic entries will be displayed when a search is prosecuted using an LC card number. This event occurs when two or more records bear the same number, and when it does occur, the cursor will be displayed at the home position. Each of the truncated entries will be numbered, and if one of the entries appears to match the title page at hand, type its number, depress DISPLAY REC'D, then SEND. The full bibliographic record will appear on the screen. Compare the description with the title page; if it fits the title page, proceed with the cataloging procedure. If the description on the screen does not fit the title page and if it is thought that one of the other truncated entries might do so, the display of truncated entries can be recalled by typing PS (abbreviation for "previous screen"), and depressing DISPLAY REC'D and SEND. If a bibliographic record cannot be found by using the LC card number that matches the title page, clear the screen and use the search key procedure.

When the bibliographic record on the screen matches the title page of the book at hand, proceed to catalog it as described in the next section entitled CATALOGING WITH EXISTING BIBLIOGRAPHIC INFORMATION. If the biblographic record is not found by either LC-card-number access or search-key access, it is then necessary to input the cataloging information as described in a subsequent section entitled INPUT CATALOGING.

Search Keys - Name-Title Entries

The OCLC access system by name-title and title-only entries employs a 3,3 search key. In the case of the name-title entry, the search key consists of the first three letters of the main entry and the first three letters of the first non-English-article word of the title. At the present time, foreign articles will be treated as the first word.

Punctuation should be deleted from words, and the space, which the punctuation mark occupied, should be eliminated before the search key is constructed. For example, "U.S." should be changed to "US", the search key will be "USb̸" where "b̸" signifies a blank. Similarly "O'Brien" becomes "OBrien", and the search key is "OBr". In constructing the search key for the title, The co-op in Sweden, the English article "The" should be discarded and the hyphen eliminated from "co-op". Hence the key is "coo".

The 3,3 search key for a book by John O'Brien entitled The Co-op in Sweden (New York, Wiley, 1964) is "OBr,coo". However, it is immaterial to the system whether upper- and lower-case characters are used or all upper-case or all lower-case. The following three search keys for O'Brien's book are equally valid: 1) OBr,coo; 2) OBR,COO; and 3) obr,coo. When the search-key method of access is employed, one or more truncated titles will be displayed on the screen. A truncated entry will consist of up to 58 characters of the main entry, and if 58 characters of the main entry are displayed, up to 30 characters of the title, plus the date of imprint. This data will be preceded by a sequential number. If there is but one entry for a search key, as will be the case for three out of four keys, the full bibliographic record will be displayed immediately. Ninety-nine percent of the time, all of the truncated entries for a single search key will occupy less than one screen. To obtain the full bibliographic record, type the number of the entry desired; the computer will have placed the cursor at the home position. Then depress DISPLAY REC'D and SEND. The full bibliographic record will appear on the screen.

If more truncated entries are found than can be displayed on one screen, there will be a message at the top in the following form: "Screen 1 of 2 screens". To see the next screen, type NS, DISPLAY REC'D and SEND. To return to the previous screen, type PS and depress DISPLAY REC'D and SEND. If the search key yields more entries than can be displayed on two screens (nine entries per screen), a message will be put out requesting the cataloger to enter a three-character key consisting of the first letter of the next three words in the title following the last word from which a key had been derived on the previous search. A comma must follow the first and second positions in the key even when a position is blank. Next depress DISPLAY REC'D and SEND.

The initial search key for the following entry is "USb̸,NOM", and it produces more entries (162) than any other key from a MARC file of 130,000 records.

> U. S. Congress. Senate. Committee on Finance.
> Nominations. Hearing, ninety-first Congress, second session, on nomination of Elliot L. Richardson, of Massachusetts, to be Secretary of Health, Education, and Welfare. June 11 and 12, 1970.
> III, 43 p. illus. 24cm.

Upon being requested to enter the three-character key, the cataloger will type "H,N,C" (the hyphenated phrase "ninety-first" is treated as one word). Again, there will be too many entries (55) for two screens, so the request for a three-character key will be repeated. The cataloger will then enter "S,S,O". This time there will be 22 replies, so again a three-character key is requested. The cataloger now enters "N,O,E". Only one reply will be made, and it will be the entry sought. Thus, the desired record is obtained in the worst possible case.

Search Keys - Title

A work may be searched by its title in a name-title or title-only entry. The format of the title-type search key is the first three letters of the first non-English-article word of the title followed by the first letter of the following three words each separated by commas. For example, the title search key for George H. Daniels' American Science in the Age of Jackson is "AME,S,I,T". The title key for C. P. Snow's Last Things is "LAS,T,b̸,b̸".

Search Keys - Main Entry Index

(Supplementary pages will be issued containing a description of the search keys to be used when searching by main entry only.)

CATALOGING WITH EXISTING BIBLIOGRAPHIC INFORMATION

This section describes cataloging employing a master bibliographic record displayed on the CRT screen that was located by using either an LC card number or a search key. The majority of cataloging will then proceed with editing of the bibliographic data and acceptance or construction of a call number. However, before final cataloging, other information can be obtained from the system such as other titles by the same author, authority for entry, other titles classed in the same class number as given on the master bibliographic record, and determination as to whether the class number used by the Library of Congress is the same class number in which the library places books on the subject of the title at hand.

Most libraries use the Library of Congress main entry as an authority and supplement Library of Congress cataloging with their own authority file. Authority files may be entered into the system, but in their absence a Library of Congress record will be displayed if it is in the system. To check for authority information the cursor should be positioned immediately following the main entry, then depress the key labeled AUTHORITY and then SEND. An authority record or a Library of Congress record will be displayed as a truncated entry if either is present in the system. The cataloger may then obtain the full record by following the procedure described under the subheading Search Key.

The cataloger may also determine what titles have already been entered in a given class number by positioning the cursor in the blank space following the class number displayed on the screen providing that the class number does not end with a date; if the number terminates with a date, place the cursor in the blank space before the date. Next, depress DISPLAY REC'D and then SEND. Truncated entries for up to ten titles classed under the number being searched by the library doing the searching will then be displayed on the screen.

Editing Bibliographic Data

The cataloger will probably first scan the bibliographic data for errors and by "errors" is meant only errors in spelling or in tagging and coding. These errors should be corrected on the screen by overtyping the incorrect character or characters. To overtype, position the cursor over the incorrect character and type the correct character.

If there is an extra character in the data on the screen that is not on the title page, that character may be deleted by positioning the cursor on the offending character and depressing the key labeled DEL. If characters have been omitted from the data that are on the title page, insertion of characters can be achieved as previously described under INSERTION in the section entitled OPERATION OF TERMINAL. The cursor should be placed in the position where the omitted text is to be inserted. Then depress the key labeled INSERT; the small orange indicator lamp bearing the caption INSERT MODE will light up. Next type the text that is to be inserted. The text already on the screen will automatically advance to make room for the new text. When the insertion is complete, depress the INSERT key again, the indicator lamp will go out, and the terminal will return to normal mode.

A new field can be inserted by opening up a line for the insertion or by typing the new field following the last line displayed. To open up a new line, position the cursor at the start of the line to follow the new line and insert a paragraph mark. Then put the terminal into insert mode and type in the new field.

Whether the new field is inserted or added, it must be given a decimal fraction number that will position the field relative to existing numbered fields. For example, if a cataloger wished to insert the subject heading "Poverty" as the first subject heading in Figure 4, the new field could be numbered 5.5. Subsequently, the cataloger could add another subject-heading field between "Poverty" and "Social work with youth - New Haven" by assigning 5.8 to the second new field.

Whenever a correction, deletion, or insertion has been effected in a field, the key ADVANCE LINE should be depressed until the cursor is in the first position of the field following that in which the change was made. Then depress SEND. This action will have the effect of communicating the altered field to the computer so that the cards produced will contain the change made in that field. Only those fields in which changes are made need to be sent to the central computer when cards are to be produced from a bibliographic record already in the system.

If the book at hand is a different edition from the one on the screen, the edition statement and the imprint and perhaps other changes can be effected using the techniques just described. However, a different edition (not merely a different printing) constitutes a separate bibliographic record, and the edited text on the screen should be viewed as new cataloging. Therefore, follow the procedure described under the subsequent section entitled INPUT CATALOGING for the transmission of the data, field by field, to the central computer.

Class Numbers

For a book to be classed in the literature section of a classification schedule and in some other sections of classification schemes, it will be necessary to check to see if the library uses the same class number for the author as that on the bibliographic record displayed. To do so, the cataloger should follow the procedure described above. If the library has used the class number, truncated entries for up to the last ten titles assigned the number will be displayed, and if the entries displayed are for the author being searched, the cataloger can accept the class number on the master bibliographic record. However, that record will have disappeared from the screen when the truncated entries were displayed. Therefore, return the cursor to home if it is not already there, type PS (for "previous screen"), and depress DISPLAY REC'D and SEND. The master record will reappear, and the cataloger can continue cataloging.

When the library has not used the class number being searched, a truncated version of the entry most recently assigned to the number on either side of the number being searched will be displayed. If the alphabetized location of the author's name is between the two names displayed, the cataloger can accept the class number on the master record and proceed as described in the previous paragraph.

When the author's name being searched is not in an alphabetized location between the names in the two entries displayed, the cataloger will select an arbitrary class number beyond the number for the entry that alphabetizes more closely to the name sought. Type the selected number at the home position, then CL, depress DISPLAY REC'D and then SEND. The cataloger should repeat this procedure until the correct, alphabetized location for the author's name being searched is discovered.

It must be pointed out, however, that the procedure described in the last two paragraphs will not produce valid results until after the library has converted and entered into the system its entire shelf list.

Call Numbers

Processing of call numbers can constitute 1) acceptance of a call number displayed with the bibliographic data; 2) an alteration of the call number displayed; or 3) the addition of a book number to a class number displayed.

Libraries mimicking LC cataloging will be able to accept LC call numbers as displayed when such a call number is made up of an LC classification number plus a book number. However, if the library has not converted its shelf list and is not employing a special character at the end of call numbers produced in the on-line system or is not using an "x" or some other character at the end of call numbers for which the library has done original cataloging, it will be necessary for the operator to check the call number against the shelf list to determine whether or not the call number has already been used. Once the library has converted all of its holdings into the on-line system, the checking can be done from the terminal by placing the cursor at the end of the call number field, depressing CHK CALL NUM and then depressing SEND. A message will be printed out at the top of the screen informing the cataloger whether or not the call number checked has already been used.

The cataloger may change a call number by overtyping a character or characters, by deleting a character or characters, or by adding characters. Presumably such a changed call number will require checking, and the same procedure described in the previous paragraph should be followed. Libraries employing LC's alternate literature class number or Dewey classification numbers will need to complete such class numbers when displayed on the screen by adding a book number. Once again, it will be necessary to check whether or not a new number has been used by following the procedure described above even though the library may be using a special symbol at the end of the call number to denote that the call number was produced in the on-line system.

When the call number has been completed on the screen, it should be written in the book to be used in physical processing. If the library has an optional printer attached in the terminal, the cataloger should return the cursor to home, type LL (for labels), depress PRODUCE and then SEND. The computer will reply by writing text for the labels on the screen. Next, the cataloger should depress PRINT; the labels will then be typed on the forms in the typewriter.

The subsection Multiple and Partial Holdings describes the procedure for adding holdings information to call numbers as well as location stamps not automatically supplied by the catalog production program.

Holding Library

Unless this field is filled in on the screen, the system will automatically place the symbol for the library doing the cataloging in the field. In some smaller institutions there is only one holding library so that insertion of the holding library symbol will always be automatic.

In institutions having more than one holding library, the cataloger should always enter the holding library symbol whenever the holding library differs from the main collection in the library in which the cataloging is being done. These symbols are the same as those employed in off-line catalog production. For example, at Ohio University, the symbol for the reference collection in the main library is "OUR", and this symbol should be typed into the position designated when the book is to be shelved in Reference. Similarly, a book being cataloged for the Fine Arts Library at Ohio University should have "OUA" entered for it. When a book is being cataloged for the main library, no symbol need be entered, for the system will automatically default to "OUN", the symbol for the main collection.

Multiple and Partial Holdings

Provision is made in the system for recording and printing holdings information. This section gives the cataloger sufficient information for him to be able to introduce into the system all the data necessary for the printing of cards and for the circulation of the book.

Here, as elsewhere, the subfield delimiter "double dagger" will be represented by "‡", the end-of-field paragraph mark by "¶" and all other characters will represent themselves.

The tag for the holdings field is 049. There must be one and only one 049 field for each and every call number. Thus, if the cataloger has assigned two call numbers to two copies of a book, then each of the call number fields should be succeeded immediately by a holdings field. If the holdings field is absent, a default 049 field will be used by the system.

The interpretation and use of the contents of the 049 field is governed by its indicators. Both indicators for the 049 field will be used. The first indicator controls the printing of the holdings information. If the first indicator is a 0 (zero), the holdings information is for circulation purposes only, and no information below the holding library level is to be printed on any cards. If the first indicator is either a 1 or a 2, all holdings information will be used in card production. The information will be formated according to one of the two formulae specified by the library and selected by the indicator.

The second indicator indicates whether or not the 049 field contains all of the holdings information for this particular title-call number combination. A 0 (zero) is used to indicate that the information in the 049 field is complete; a 1 indicates that it is incomplete.

The "a" subfield is set up to hold all the shelving information necessary to locate a book. The most important item is the holding library code. These codes are the same three-letter codes that were used in the off-line system and have the same meaning. If within a holding library there are special shelving locations for which no codes have been assigned, the stamps corresponding to these locations will also be carried in the "a" subfield. For example:

For Xavier University (XAV), which has a locked stack, the following might be used:

049 00 XAV[LOCKED][STACK]¶ (ex. 1)

There are four things to note in this example: 1) the "‡a" is not written in since the first subfield is the "a" subfield; 2) brackets surround all information with the exception of the holding library code; 3) each line of the stamp is bracketed separately; and 4) the stamp follows the holding library code indicating that it should be printed below the call number.

Ohio University (OUN), which does not have automatic oversize, can indicate the special shelving of an oversize book by:

049 00 [QUARTO][SHELF]OUN # (ex. 2)

Note that in this case the stamp would be printed above the call number.

If a library shelves only the latest volume of a serial in a special location, this information, when carried as a stamp, can be carried in the "a" subfield. For example, Marietta College (MRC) shelves only the latest volume of Moody's handbook of common stocks in its reference collection; all previous volumes are shelved in the main library's stacks. This information can be carried in the system as:

049 01 MRC[LATEST][VOL IN][REF]# (ex. 3)

As with the off-line system, no stamps should be entered which would otherwise be produced automatically such as those based upon the holding library code, automatic oversize, etc.

If a single copy of a work is to be shelved in the cataloging library and no special stamps are to be added to the call number, then the holding library code for the cataloging library need not be entered -- it will be used as the default. For example, if Kenyon College (KEN) were cataloging a work for the main library's stacks, then

049 00# (ex. 4)

and

049 00 KEN# (ex. 5)

would convey the same information to the system, and either could be used.

The "c" subfield identifies copy numbers. In the previous examples (ex. 1-5), where no "c" subfield was entered, a "‡c 1" was assumed. However, since the first indicator was 0, the assumed copy number would not have been printed. This information could have been explicitly entered in example 1 by entering:

049 00 XAV[LOCKED][STACK] ‡c 1# (ex. 6)

and in example 5 by entering:

049 00 ‡c 1# (ex. 7)

If in example 5, three copies of the book had been acquired, the following equivalent holdings field could have been entered:

049 00 ‡c 1-3* (ex. 8)

As a summary to the preceeding examples, one more example with a single variation can be developed. If Ohio State University has three copies of a work and if the cataloger wishes to provide the system with the following information:

the main library (OSU) has copy 1

the fine arts library (OSF) has copy 2

copy 3 is lacking

the main library has copy 4

This information could be entered into the system as:

049 00 OSU ǂc 1,4 ǂa OSF ǂc 2 (ex. 9)

This entry can be read as

OSU has copies 1 and 4, and OSF has copy 2.

If Ohio State University numbered its copies within the holding libraries instead of within the total library system, and if the missing copy had been the second copy in the main library, then

OSU has a copy 1

OSU is lacking a copy 2

OSU has a copy 3

OSF has a copy 1

would have been the desired information to enter, and example 10 will accomplish this entry.

049 00 OSU ǂc 1,3 ǂa OSF ǂc 1 ¶ (ex.10)

The difference between multiple and partial holdings statements (both are 049 fields) lies in the subfields used and hence is determined mostly by the cataloger. Under a certain set of conditions (specified below) the cataloger can construct a 049 field completely and unambiguously by using only "a" and "c" subfields. A 049 field so constructed is a multiple holdings statement. If any of the other available subfields are used (all of which are defined below) the resultant 049 field is a partial holdings statement.

The conditions under which a multiple holdings statement can be used are: 1) the library must have one or more complete copies of the work and no incomplete copies (i.e. no physical volumes are lacking from any set); and 2) the number of physical volumes must be ascertainable from the collation statement as it appears in the master record. For this second condition to hold true, the collation line must begin with pagination information (i.e. the work is complete in one volume) or begin with "n v." or "m v. in n" where both "m" and "n" represent Arabic numbers in these formulae, and "n" is taken to be the number of physical volumes in both formulae. If either of the above conditions cannot be met (for example, the number of volumes is open), then the holdings statement must be made into a partial holdings statement. If the volumes are not known as vol.1, vol.2, etc. within the library (e.g., if dates or accession numbers are used to refer to and circulate individual volumes) or if one or more volumes are cataloged under different call numbers (i.e. volumes of the work have to be split between two or more different 049 fields) the holdings statement must be a partial holdings statement.

The "v" subfield is to identify volume information either physical or bibliographical, depending upon the library's practices. If the cataloger records bibliographical instead of physical volumes and if the number of physical volumes differs from the number of bibliographical volumes, then the cataloger will have to use additional subfields and/or brackets (see below) to describe to the system how the bibliographical volumes relate to the physical volumes. For example, if Western College for Women (WCW) had two copies of volume 1 and one copy each of volume 2 and 3 of a 3 volume (both bibliographical and physical) set, then the following would be used:

049 10 WCW ‡c 1 ‡v 1-3 ‡c 2 ‡v 1 ‡‡ (ex. 11)

The "p" subfield is the next level of breakdown below the "v" (volume) level. For example, if Oberlin College had one complete copy of a two volume work the first volume of which was in two parts and each part was bound separately (collation starts: 2 v. in 3), then the following would be used:

049 10 OBE ‡c 1 ‡v 1 ‡p 1,2 ‡v 2 * (ex. 12)

The "q", "r", "s", "t" and "u" subfields represent additional successive levels of breakdown below the "p" subfield. The "names" of these levels and for the "v" and "p" levels depends upon the formulae specified by the library; however, it has been assumed up to this point that "volume" (vol., vol, v., etc.) has been used at the "v" level and "part" (pt., p., etc.) at the "p" level.

Once a formula has been set up by a library to control printing of holdings information, it will then become necessary occasionally to change the text of the formula. For example, if the formula has been set up to preceed the contents of the "v" subfield with the text "v." when printing and if the cataloger now has a German work in hand and wishes to use "Bd." then the cataloger should enter

‡v [Bd.] 1-3

instead of the normal

‡v 1-3

Whenever bracketed text preceeds the normal contents of a subfield, the bracketed text overrides the default text specified in the printing formula.

Occasionally the need arises to use non-numeric information in one of the subfields in the place of numeric information (e.g. a book has two parts "a" and "b", instead of "1" and "2"). The non-numeric data is placed in parentheses in place of the numeric information for the example cited above:

‡p (a),(b)

Also, if numeric data contains a decimal or a hyphen, the data should appear in parentheses.

The following three examples (ex. 13-15) were drawn from the holdings of Bronn's *Klassen und Ordnungen des Tierreichs* in the Botany and Zoology Library at Ohio State University (OSB).

049 11 OSB ǂc 1 ǂv [Bd.]2 ǂp [Abt.] 3 ǂq
(Buch) 1-5¶ (ex. 13)

Example 13 records Bd.2, Abt.3, Buch 1 through Bd.2, Abt.3, Buch 5.

049 11 OSB ǂc 1 ǂv [Bd.]3 ǂp[Suppl.]() ǂq
[Abt.]1 ǂr [Lfg.](1-47),[Lfg.](48-98)¶ (ex. 14)

Example 14 records Bd.3, Suppl., Abt.1, Lfg.1-47 and Bd.3, Suppl., Abt.1, Lfg. 48-98.

049 11 OSB ǂc 1 ǂv [Bd.]5 ǂp [Abt.]3 ǂq [Buch]12
ǂr [Teil](a),[Teil](f)¶ (ex. 15)

Example 15 records Bd.5, Abt.3, Buch 12, Teil a and Bd. 5, Abt.3, Buch 12, Teil f.

If a library records such data as accession numbers, dates, or dates of publication as part of holdings information, this data should be placed in brackets following the numeric and/or parenthesized portion of the lowest level subfield corresponding to the item.

Some examples are:

049 11 WCW ǂc 1 ǂv 29[46862],30[48350]¶ (ex. 16)

049 11 WCW ǂc 1 ǂv 10[1969],11[1970]¶ (ex. 17)

049 11 WCW ǂc 1[37226],2[37227]¶ (ex. 18)

Whenever volumes bearing the same title are bound together but the library desires that they be listed separately in the library's holdings, the binding of the works should be indicated with braces. Some examples are:

049 11 OSU ǂc 1 ǂv 30 {ǂp [no.]1[Jan.1956],[no.]2[Mar.1956],[no.]3[May 1956],
[no.]6[Nov. 1956]}¶ (ex. 19)

049 11 OSU ǂc 1 {ǂv 1-5}, {6-10},11,12¶ (ex. 20)

In example 20, volume 1 through 5, and 6 through 10 are bound together.

Local Note

If there is a note to be printed on the card that relates only to the specific copy being cataloged, that note should be written in the 590 field. Both indicators are blank.

User Option Area

If data is to be entered into the user option area on the bottom line of cards (see Manual for OCLC Catalog Card Production (February 1971) p. 28). the data is given the tag 910. Both indicators are blank. For example, an accession number to be in this area would be entered as follows:

910 123456

However, if a library's profile provides for data to go automatically into the user option area, entries should not be made manually into the 910 field.

Production of Catalog Cards

When the bibliographic data has been edited, the call number constructed, the holding library symbol added, and local note, if any, put in the 590 field, the cursor should be returned to home, the key labeled PRODUCE should be depressed and then SEND. This action will cause all necessary cards to be produced to be delivered to the cataloging library in packs, ready to be filed in individual catalogs. The new holdings information about the title including institution, holding library, call number, and local note if any, will be added to the system files. In addition, all information required to reproduce the catalog cards will be retained on an archive tape.

INPUT CATALOGING

Cataloging that is new to the central data base will be discussed in this section. From the viewpoint of the cataloging library, such cataloging may not be "original" since it may constitute LC cataloging not available in the master bibliographic record file, but available elsewhere such as on a proof slip or in the printed National Union Catalog.

To undertake input cataloging, the cataloger should first request a workform of the system. Return the cursor to home position if necessary. Type WF (abbreviation for "workform"), then depress DISPLAY REC'D and SEND. A workform like that depicted in Figure 5 will appear on the screen. The dashes, "-", in Figure 5 will be blinking to remind the cataloger to fill them in. The blinking dashes represent digits in the tags and indicators. The asterisks in Figure 5 represent paragraph marks.

Transmission of input cataloging in the computer is field by field. As soon as a field has been completed, the ADVANCE LINE key should be depressed and then SEND; the completed field will be transmitted. The entire fixed field should be transmitted in the same manner. When all fields have been transmitted and the command to produce cards has been given, the computer will assemble the fields into a master biblographic record, assign to the record an OCLC record number if an LC card number is lacking, add the record to files, index it, and produce cards.

```
[Cursor at home position]

Type:         Lang:
Form:         ISBN:
Intel lvl:    Card No:
Bibl lvl: ¶
¶
▷ 1 1-- --     d ¶
▷ 2 24- --     b  c ¶
▷ 3 250         ¶
▷ 4 260 -      b  c ¶
▷ 5 300        b  c ¶
▷ 6 4-- --     d ¶
▷ 7 5-- -     ¶
▷ 8 6-- --    ¶
▷ 9 7-- --     d  ¶
▷10 8-- -     ¶
▷11 092        b ¶
▷12 049 --    ¶
▷13 590       ¶
```

Figure 5: Workform on screen for a Dewey library.

Fixed Fields

In the workform there are seven fixed fields that precede the bibliographic data fields. These fields may be filled in at anytime during the cataloging. All fixed fields except illustrations, ISBN, and LC card numbers will have defaults that will be in effect unless expressly overridden. The cataloging source item can be defaulted according to the terminal being used, but this item is also capable of being overridden. For example, it may be in a university library system that the main library does most of the cataloging centrally, but that some department libraries, such as the music library, may catalog special types of material. If the music library catalogs phonograph records and has access to the terminals in the central library, the operator can then key in the music library symbol as cataloging source.

In the following listing the default conditions are underlined. The default techniques makes it necessary for the cataloger to key in the appropriate symbol only when the default is not in effect. For example, whenever the material being cataloged is printed language material as will be the case most of the time, it will not be necessary to key the character "a" after TYPE. However, if the material is printed music, then the character "c" must be keyed in.

TYPE: one character

a	Language material, Printed
b	Language material, Manuscript
c	Music, Printed
d	Music, Manuscript
e	Maps and atlases, Printed
f	Maps, Manuscript
g	Motion pictures and filmstrips
h	Microform publications
i	Phonorecords and other sound recordings, Language or spoken
j	Phonorecords and other sound records, Music
k	Pictures, designs, and other two-dimensional representations
l	Computer media, i.e., machine-readable data
x	Authority data, Names
y	Authority data, Subjects

BIBLIOGRAPHIC LEVEL: one character

m	Monographs
s	Serials

INTELLECTUAL LEVEL: one character

j	Juvenile
b̸	Non-juvenile

FORM OF REPRODUCTION: one character

a	Microfilm
b	Microfiche
c	Micro-opaque
d	Large print
b̸	blank (Not a reproduction)

LANGUAGE: Three alphabetic characters

eng English (Appendix II is a table of language codes)

If the language of the title differs from the language of the text, the abbreviation for the title language should be entered following a comma typed after the abbreviation for the text language.

eng, fre

ISBN: A 10-digit number

CATALOGING SOURCE: three characters.

LC CARD NUMBER: Complete number including prefixes and suffixes if present.

Bibliographic Data Fields

The bibliographic data fields should be filled in according to the instructions given in the manual entitled Creation of Machine-Readable Catalog Entry. For example, the first line of bibliographic data, namely the main entry, in Figure 4, could be filled in as follows:

(1) 100 10 Cary, Max, ǂd 1881-1958.¶

This line was prepared by placing the cursor over the first blinking dash following the "1" in the tag, next the "0" (zero) was typed, another "0", a space, a "1" and then a "0". At this junction the cursor was on the space before the double dagger. The key labeled INSERT was pressed and the author's name including the final comma was typed. While the author's name was being typed, the delimiter, sub-field code "d" and the paragraph mark moved along to the right of the data being input. Following the author's name, a space was inserted by depressing the space bar. Then the cursor-move-right key was held down until the cursor had moved onto the paragraph mark. The birth and death dates and period were then typed in. The INSERT key was depressed again to take the terminal out of insert mode, and the ADVANCE LINE key depressed so that the cursor was positioned at the first column on the next line. Next SEND was depressed so that the first field was transmitted to the computer.

The following example is more complex:

(1) 100 00 Constantinus ‡b XI Dragases,

‡c Emperor of the East, ‡d d.1453

In this example, the cursor was positioned on the first blinking dash that followed the "1" of the tag as shown in Figure 5. Next, the cataloger typed in the "0" (zero), another "0", a space, and two more 0's in the two indicator fields. The first indicator designates the main entry as being a forename. At this juncture, the cursor was on the space before the delimiter. The INSERT key was depressed and "Constantinus" was typed followed by a blank which was typed in using the space bar. Next was typed the delimiter and the lower case "b" followed by a blank, then "XI Dragases," another blank was inserted after the comma and the delimiter followed by lower case "c" was typed, then a blank, and then "Emperor of the East" followed by a comma. Another blank was inserted, and the cursor-move-right key employed to move the cursor past the subfield code "d" to the paragraph mark. Finally, "d. 1453" was typed in. Then the INSERT key was depressed again to take the terminal out of insert mode, and ADVANCE LINE was depressed, thereby positioning the cursor in the first position of the next line. Lastly, SEND was depressed to transmit the main entry field to the central computer. The remaining fields through tag 800 should be constructed in the same manner.

If a field on the workform does not exist in the data, it can be skipped over by depressing ADVANCE LINE. For example, after transmission of the title field, the cursor is blinking on the first character of the edition field. If there is no edition stateme[illegible]e cataloger has only to depress ADVANCE LINE to skip this field so as to [illegible] data in the imprint field. Similarly, if there is no data to be inserted following a subfield code in the workform, the computer will automatically eliminate that code. For example, in the imprint field a publisher may be lacking so that after place of publication has been inserted, the cursor will be moved to a position following subfield code "c" and the date inserted. When the imprint is transmitted to the computer, the computer will discard the delimiter and subfield code "b".

Non-bibliographic fields

Data for the call number, holding library, and local notes will be inserted in the manner described for such new information in the previous section. Each field should be separately transmitted to the central site.

The languages field (041) should be filled in if appropriate and transmitted. (See MARC manuals)

Produce Cards

The production of catalog cards is carried out as described at the end of the previous section except that in input cataloging all of the input cataloging in fixed fields will also be added to the master record base.

APPENDIX I: Table of Characters

Unless specified otherwise, the character displayed in the Table is the desired character, and the keys activated to produce a character are the same as the keys that would be used in normal typing. The SHIFT and SHIFT LOCK keys are operated in the same manner as the corresponding keys of a typewriter and serve the same function.

The CONTROL key is operated in the same manner as a SHIFT key but serves a different function. The CONTROL key is a special "shift" that is necessary for the generation of the start-of-message (▷), paragraph mark (¶), and delimiter (ǂ) characters, and the clear-page and master-reset functions.

The ESC (escape) key is also a special "shift" in its function; however, it is not operated as a shift key. Whenever the ESC key is struck, the keyboard is conditioned for the special character set which includes the diacritics. Hence, after striking the ESC key, both hands are free to activate the other key or keys necessary to produce the special character. The ESC key is also used in the two stroke operation ESC, DEL PARA in order to delete to the next paragraph mark. If the ESC key has been depressed accidentally, its effect can be canceled by striking the CONTROL key.

The ADVANCE CURSOR bar may be used in place of the BLANK key under either of the following conditions: 1) the machine is in the INSERT MODE; or 2) the cursor is positioned at an otherwise blank position on the screen.

Character	Name of Character	Character Displayed	Keys Activated
‡	Double Dagger (delimiter)		Control, /
	Space		Blank
!	Exclamation Point		
"	Quotation Marks		
#	Number Sign		
$	Dollar Sign		
%	Percent Sign		
&	Ampersand		
'	Apostrophe		
(	Opening Parenthesis		
)	Closing Parenthesis		
*	Asterisk		
+	Plus		

Character	Name of Character	Character Displayed	Keys Activated
,	Comma		
-	Hyphen (Minus)		
.	Period (Decimal Point)		
/	Slash		
0			
1			
2			
3			
4			
5			
6			
7			
8			
9			
:	Colon		
;	Semi-Colon		

Character	Name of Character	Character Displayed	Keys Activated
<	Less Than		
=	Equals		
>	Greater Than		
?	Question Mark		
@	Commercial At Sign		
A			
B			
C			
D			
E			
F			
G			
H			
I			
J			
K			

Character	Name of Character	Character Displayed	Keys Activated
L			
M			
N			
O			
P			
Q			
R			
S			
T			
U			
V			
W			
X			
Y			
Z			
[	Opening Bracket		

Character	Name of Character	Character Displayed	Keys Activated
\	Reverse Slash		
]	Closing Bracket		
a			
b			
c			
d			
e			
f			
g			
h			
i			
j			
k			
l			
m			
n			

Character	Name of Character	Character Displayed	Keys Activated
o			
p			
q			
r			
s			
t			
u			
v			
w			
x			
y			
z			
Ł	Polish L - Upper Case	\	ESC, Shift, 1
Ø	Scandinavian O With A Slash	/	ESC, Shift, 2
Đ	D With Cross Bar - Upper Case	^	ESC, Shift, 3
Þ	Icelandic Thorn - Upper Case	~	ESC, Shift, 4

Character	Name of Character	Character Displayed	Keys Activated
AE		—	ESC, Shift, 5
OE		∪	ESC, Shift, 6
ʹ	Mi͡agkiy̆ Znak	•	ESC, Shift, 7
.	Dot in Middle of Line	• •	ESC, Shift, 8
♭	Musical Flat	∨	ESC, Shift, 9
®	Subscript Patent Mark	○	ESC, Shift, :
±	Plus or Minus	◜	ESC, Shift, ;
ơ		◝	ESC, ,
ư		⊢	ESC, —
ʼ	Alif	space	ESC, .
ʻ	ʻAyn	┘	ESC, 0
ł	Polish l - Lower Case	(·	ESC, 1
ø	Scandinavian o With Slash - Lower Case	·)	ESC, 2
đ	D With Cross-Bar - Lower Case	|ı	ESC, 3
þ	Icelandic Thorn - Lower Case	ı|	ESC, 4

Character	Name of Character	Character Displayed	Keys Activated
ae		═	ESC, 5
œ		—	ESC, 6
//	Tvërdyĭ Znak	ɿ	ESC, 7
ı	Turkish i - Lower Case	ɕ	ESC, 8
£	British Pound	‿	ESC, 9
ð	Eth	∼	ESC, :
ơ		▷	ESC, Shift, ,
ư		¶	ESC, Shift, —
ℓ	Scriptel	ℓ	ESC, Shift, .
?	Pseudo Question		ESC, @
`	Grave		ESC, A
´	Acute		ESC, B
^	Circumflex		ESC, C
~	Tilde		ESC, D
¯	Macron		ESC, E
˘	Breve		ESC, F

Character	Name of Character	Character Displayed	Keys Activated
·	Superior Dot		ESC, G
··	Unlaut or Dieresis		ESC, H
ˇ	Haček		ESC, I
°	Circle or Angstrom		ESC, J
◜	Ligature		ESC, K
◝	Ligature		ESC, L
ʼ	High Comma Diacritical	⊢	ESC, M
˝	Double Acute	Space	ESC, N
ᵕ	Candrabindu	Space	ESC, O
¸	Cedilla		ESC, P
˛	Right Hook	(·	ESC, Q
·	Dot Below Character	·)	ESC, R
··	Double Dot Below Character	|'	ESC, S
°	Circle Below Character	'|	ESC, T
=	Double Underscore		ESC, U
—	Underscore		ESC, V

Character	Name of Character	Character Displayed	Keys Activated
◞	Left Hook		ESC, W
◟	Right Cedilla		ESC, X
—	Upadhmānīya		ESC, Y
⌒	Double Tilde		ESC, Z
‿	Double Tilde		ESC, [
,	High Comma (Centered)	ℓ	ESC, ^

APPENDIX II: LIST OF LANGUAGES AND LANGUAGE CODES - July 15, 1969

(Extracted from Data Preparation Manual: MARC Editors)

Code	Language
ACH	Acholi
AFR	Afrikaans
AFA	Afro-Asiatic (Other)
AKK	Akkadian
ALB	Albanian
ALE	Aleut
ALG	Algonquin
	Amarinya see Amharic
AMH	Amharic
	Ancient Greek see Greek (Classical)
	Ancient Hebrew see Hebrew
ANG	Anglo-Saxon
APA	Apache
ARA	Arabic
ARC	Aramaic
ARP	Arapahoe
ARN	Araucanian
ARW	Arawak
ARM	Armenian
	Armoric see Breton
ASM	Assamese
AVA	Avar
	Avaric see Avar
AVE	Avesta
AYM	Aymara
AZE	Azerbaijani
	Azeri see Azerbaijani
BAL	Baluchi
BAT	Baltic (Other)
	Bamana see Bambara
BAM	Bambara
	Bantu see Niger-Congo
BAK	Bashkir
BAQ	Basque
BEJ	Beja
BEL	Belorussian
BEM	Bemba
BEN	Bengali
BER	Berber Group
BIH	Bihari
	Biluchi see Baluchi
	Bishari see Beja
BLA	Blackfoot
	Bohemian see Czech
BRE	Breton
BUL	Bulgarian
BUR	Burmese
	Bushman see Sub-Saharan African

CAD	Caddo
CAM	Cambodian
	Canarese see Kannada
CAR	Carib
	Castillian see Spanish
CAT	Catalan
CAU	Caucasian (Other)
CEL	Celtic
CAI	Central American Indian (Other)
	Chaldean see Aramaic
CHE	Chechen
CHR	Cherokee
CHY	Cheyenne
CHB	Chibcha
CHI	Chinese
CHN	Chinook
CHO	Choctaw
CHU	Church Slavic
CHV	Chuvash
	Classical Greek see Greek (Classical)
COP	Coptic
COR	Cornish
CRE	Cree
CRP	Creoles and Pidgins
CRO	Croatian
CUS	Cushitic (Other)
CZE	Czech
DAK	Dakota
DAN	Danish
	Dano-Norwegian see Norwegian
DEL	Delaware
	Denca see Dinka
DIN	Dinka
DRA	Dravidian (Other)
DUA	Duala
DUT	Dutch
EFI	Efik
EGY	Egyptian
ENG	English
ENM	English (Middle)
	English (Old) see Anglo-Saxon
	Erse see Gaelic
	Eskimoan see Eskimo
ESK	Eskimo
ESP	Esperanto
EST	Estonian
ETH	Ethiopic
EWE	Ewe
FAN	Fang
	Farsi see Persian (Modern)
FIN	Finnish
FIU	Finno-Ugrian (Other)
FLE	Flemish
FON	Fon

FRE	French
FRM	French (Middle)
FRO	French (Old)
FRI	Frisian
GAA	Ga
GAE	Gaelic
	Gaelic (Irish) see Irish
	Gaelic (Scots) see Gaelic
GAL	Galla
	Ge'ez see Ethiopic
GEO	Georgian
GER	German
GMH	German (Middle High)
GOH	German (Old High)
GEM	Germanic (Other)
GON	Gondi
GOT	Gothic
GRC	Greek (Classical)
GRE	Greek (Modern)
GUA	Guarani
	Guerze see Kpelle
GUJ	Gujarati
HAU	Hausa
HAW	Hawaiian
HEB	Hebrew
HER	Herero
HIN	Hindi
	Hindustani (Arabic) see Urdu
	Hindustani (Nagari) see Hindi
	Hottentot see Sub-Saharan African
HUN	Hungarian
HUP	Hupa
	Iai see Malayo-Polynesian
ICE	Icelandic
ILO	Ilocano
INC	Indic (Other)
INE	Indo-European (Other)
IND	Indonesian
INT	Interlingua
IRA	Iranian (Other)
IRI	Irish
IRO	Iroquois
	Isi-Xosa see Xhosa
ITA	Italian
JAP	Japanese (Use for related Japanese languages and dialects)
JAV	Javanese
	Judaeo-German see Yiddish
	Judaeo-Spanish see Ladino
KAC	Kachin
	Kafir see Xhosa
KAM	Kamba
	Kanarese see Kannada
KAN	Kannada
KAU	Kanuri
KAA	Karakalpak

KAR	Karen
KAS	Kashmiri
KAZ	Kazakh
	Kechua see Quechua
	Kewa see Papuan-Australian
	Khmer see Cambodian
KIK	Kikuyu
	KiMbundu see Niger-Congo
KIN	Kinyarwanda
KIR	Kirghiz
KON	Kongo
KOR	Korean (Use for related Korean languages and dialects)
KPE	Kpelle
KRO	Kru
KUR	Kurdish
KRU	Kurukh
LAD	Ladino
LAH	Lahnda
LAM	Lamba
	Landsmaal see Norwegian
	Languedoc see Provençal
LAO	Laotian
LAP	Lapp
LAT	Latin
LAV	Latvian
LIT	Lithuanian
LOL	Lolo
LUB	Luba
LUG	Luganda
LUI	Luiseño
MAC	Macedonian
	Madagascan see Malagasy
MLA	Malagasy
MAY	Malay
MAL	Malayalam
MAP	Malayo-Polynesian (Other)
MAN	Mandingo
MNO	Manobo
MAO	Maori
MAR	Marathi
MAS	Masai
	Mashona see Shona
MYN	Mayan
	Mbundu see Niger-Congo
MEN	Mende
	Middle English see English (Middle)
	Middle French see French (Middle)
	Middle High German see German (Middle High)
	Middle Persian see Pahlavi
MIS	Miscellaneous
	Modern Hebrew see Hebrew
MOL	Moldavian
	Mole see Mossi
	Mongo see Lolo

MON	Mongol
	Mongolian see Mongol
	More see Mossi
MOS	Mossi
MUL	Multilingual
MUS	Muskogee
	Nandi see Sub-Saharan African
NAV	Navaho
NEP	Nepali
NEW	Newari
	Nguna see Malayo-Polynesian
NIC	Niger-Congo (Other)
NAI	North American Indian (Other)
NOR	Norwegian
NUB	Nubian
NYM	Nyamwezi
NYA	Nyanja
NYO	Nyoro
OJI	Ojibwa
	Old Church Slavonic see Church Slavic
	Old English see Anglo-Saxon
	Old French see French (Old)
	Old High German see German (Old High)
	Old Persian see Persian (Old)
ORI	Oriya
OSA	Osage
	Osmanli see Turkish
OSS	Ossetic
OTO	Otomi
PAH	Pahari
PAL	Pahlavi
PLI	Pali
PAN	Panjabi
	Panjabi (Western) see Lahnda
PAA	Papuan-Australian (Other)
	Pashto see Pushto
	Persian (Middle) see Pahlavi
PER	Persian (Modern)
PEO	Persian (Old)
POL	Polish
	Polyglot see Multilingual
POR	Portuguese
PRO	Provençal
	Punjabi see Panjabi
PUS	Pushto
QUE	Quechua
RAJ	Rajasthani
	Rhaeto-Romance see Romansh
	Riksmaal see Norwegian
ROA	Romance (Other)
ROH	Romansh
ROM	Romany
RUM	Rumanian
	Rumansh see Romansh
RUN	Rundi

RUS	Russian
	Russian (Old) see Church Slavic
SAM	Samaritan
SAD	Sandawe
SAG	Sango
SAN	Sanskrit
	Scots Gaelic see Gaelic
SEL	Selkup
SEM	Semitic (Other)
	Sephardic see Ladino
SER	Serbian
	Serbo-Croatian (Cyrillic) see Serbian
	Serbo-Croatian (Roman) see Croatian
SRR	Serer
SHN	Shan
SHO	Shona
	Siamese see Thai
SID	Sidamo
SND	Sindhi
SNH	Singhalese
SIT	Sino-Tibetan (Other)
SLA	Slavic (Other)
SLO	Slovak
SLV	Slovene
SOM	Somali
SON	Songhai
	Sorbic see Wendic
SAI	South American Indian (Other)
SPA	Spanish
SSA	Sub-Saharan African (Other)
	Sudanic see Niger-Congo
SUK	Sukuma
SUS	Susu
SWA	Swahili
SWE	Swedish
SYR	Syriac
TAG	Tagalog
	* Tai see Thai
TAJ	Tajik
TAM	Tamil
TAR	Tatar
	Tchetchen see Chechen
TEL	Telugu
TEM	Temne
TER	Tereno
THA	Thai
TIB	Tibetan
TIG	Tigre
TIR	Tigrinya
TSI	Tsimshian
TSW	Tswana
TUR	Turkish
TUK	Turkmen
TUT	Turko-Tataric (Other)

TWI	Twi
UIG	Uigur
UKR	Ukrainian
UMB	Umbundu
URD	Urdu
UZB	Uzbek
VIE	Vietnamese
	Vote *see* Votish
	Votian *see* Votish
	Votic *see* Votish
VOT	Votish
WAL	Walamo
WAS	Washo
WEL	Welsh
WEN	Wendic
	Wendish *see* Wendic
WOL	Wolof
XHO	Xhosa
	Xosa *see* Xhosa
YAO	Yao
YID	Yiddish
YOR	Yoruba
ZAP	Zapotec
ZEN	Zenaga
ZUL	Zulu
ZUN	Zuni